IN THE UNITED STATES DISTRICT COURT FOR THE MIDDLE DISTRICT OF NORTH CAROLINA

STUDENTS FOR FAIR ADMISSIONS, \* INC.,

Plaintiff, \* Case No. 1:14CV954

VS.

November 9, 2020

UNIVERSITY OF NORTH CAROLINA, \*

et al.,

\* Volume 1 \* Pages 1-225

Defendants.

\*\*\*\*\*\*

EXPEDITED TRANSCRIPT OF TRIAL

BEFORE THE HONORABLE LORETTA C. BIGGS UNITED STATES DISTRICT JUDGE

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## PROCEEDINGS

THE COURT: Madam Clerk, if you would please call the case before the Court today.

THE CLERK: Yes, ma'am.

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Calling case 1:14CV954, Students for Fair Admissions, Inc., versus UNC, et al.

THE COURT: Good morning.

Before I turn it over to counsel for opening statements, I do want to make a few statements for the record; and if there are issues that we need to resolve before our opening statements, I will hear from you at that time.

As we all know, we are experiencing a worldwide pandemic caused by coronavirus. The President of the United States and the Governor of the state of North Carolina have each declared emergencies; and as we know from current reports, the cases are increasing rather than decreasing at this time. Moreover, the last standing order that the Court imposed did not necessarily encourage civil trials being conducted during this pandemic.

This Court is making an exception for very important reasons. This is a very important case with some significant constitutional issues that will impact many people. We have had to continue this trial, primarily because of COVID, but for other reasons, during the course of over a year. The Court believed it's absolutely necessary that we move forward at this time and have this hearing.

However, as all in here know, we have established a protocol which we will follow throughout the trial to try to ensure that everyone in this courtroom and everyone involved with the trial will be safe as we go through these matters.

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While much of the protocol is germane to the manner in which we will conduct ourselves during the trial, there are certain things that I think need to be said so that the public understands. This courthouse, as well as certain courtrooms, are open to the public. By executive order of the Governor of North Carolina, including Executive Order 69, and Amended Standing Order 13 of this Court, no more than 25 people shall be permitted in this courtroom at any given time.

To ensure that the public, likewise, has access to these proceedings, we have set up a second courtroom where the trial will be viewed and can be viewed by video link in this courthouse. We have also provided the public the opportunity to hear the trial via audio conference call upon request, and we have received a number of requests.

Though we are allowing members of the public to view by video in one of our courtrooms and listen via video conference, there will be no videotaping or audio recording of these proceedings. There is a general prohibition against recording equipment in the federal courthouse, and the prohibition applies in this case to all involved. It is my obligation to advise everyone that operation of video or audio recording

equipment for purposes of recording these proceedings is prohibited and violation of such can be sanctioned. We have a court reporter that is, of course, transcribing these proceedings, and that is the only official record of the proceedings.

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Now, one of the things that we have addressed in our protocol but I want the public to understand, there may be those occasions that we have bench conferences; and if we do have bench conferences, all those persons who should not be privy to those conferences will be asked to leave the courtroom. In addition, we will mute the sound for both those that are viewing via audio, as well as those in the second courtroom.

With those matters addressed, I did ask that local counsel for each of the parties be present at the beginning so that we could make certain findings on the record with respect to their presence.

With respect to local counsel for the Students for Fair Admissions, we have Andrew Freeman and Daniel Ruley. Are those persons in the courtroom?

MR. RULEY: Your Honor, I'm Alan Ruley with Bell Davis & Pitt in Winston-Salem.

THE COURT: All right. Now, Mr. Ruley, you are local counsel. I don't know if you are playing a part in the proceedings. Why don't you put on the record what your role

will be in these proceedings.

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MR. RULEY: Yes, Your Honor. Good morning, Your
Honor. Alan Ruley with Bell Davis & Pitt. I will play a small
role in the proceedings. I will examine one witness.

Pursuant to the Court's pretrial order, I acknowledge my obligations under Local Rule 83.1. I believe that the attorneys from the Consovoy McCarthy firm, who are specially appearing on behalf of the Plaintiff, are familiar with this court's local rules and Your Honor's policies and procedures. I'm confident that they will conduct the trial in accordance with the federal rules, this court's local rules, and Your Honor's policies and procedures and will appropriately observe all required courtroom decorum.

THE COURT: All right. Thank you very much. I will not require that you be in the courtroom for the entire 10-day trial, even though our local rules require such attendance. I will let you be the judge of that. I will require that you ensure that we have the information necessary to contact you if you are needed.

MR. RULEY: Thank you, Your Honor.

THE COURT: With respect to the University of North

Carolina at Chapel Hill, we have Tamika Henderson and Stephanie

Brennan.

MS. BRENNAN: Good morning, Your Honor. I'm Stephanie
Brennan from the Attorney General's office. Tamika Henderson

is here as well in the overflow courtroom. I do plan to be present here during the trial in the courtroom, and Ms. Henderson will also play a small role in the trial as well.

THE COURT: All right. Thank you. I appreciate that.

So you will be here at all times?

MS. BRENNAN: I will, but I'm also happy to certify that my cocounsel, the Skadden attorneys, are fully prepared to follow all of the applicable rules, federal and local, as well as to observe appropriate courtroom decorum.

THE COURT: Thank you very much.

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And now we will hear from Student Intervenors and lead counsel Jack Holtzman or Emily Turner.

MR. HOLTZMAN: Yes, ma'am. Jack Holtzman from the North Carolina Justice Center and Emily Turner, also from the North Carolina Justice Center, and one of us will be here at all time. We will play a small role examining a few of the witnesses.

I can say that I will be following all local rules and I'm -- my cocounsel, David Hinojosa and Genevieve Bonadies Torres, understand their obligations under local rules and federal and civil rules.

THE COURT: All right. Thank you very much. I appreciate that.

All right. Now, having done that, are there matters that we need -- let me first of all say that I have had the occasion

to work with each of the attorneys in this case up to this point and have found everyone to be very professional, very prepared, very cooperative with the Court. So I don't envision any issues, but I thought it was important that we observe that local rule of this court.

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With that said, are there any matters that we need to address before we begin opening statements?

MR. STRAWBRIDGE: Your Honor, just a couple of small things. First of all, I did just want to put on the record for the Plaintiffs that we're very appreciative of all the efforts that not only the Court and the courtroom staff, but that other opposing counsel have made to work together, given the circumstances. We are very appreciative of everyone's best efforts, and this is a case that has some weighty and emotional issues, but everyone has been professional from the beginning of the case until the end. Students for Fair Admissions is very appreciative of the conduct of everybody involved in this case.

The only other matter I wanted to raise for Your Honor was that the parties have a joint stipulation of facts that they've entered into, and I believe we provided Your Honor with a hard copy of that --

THE COURT: You did.

MR. STRAWBRIDGE: -- at the beginning of the hearing.

If Your Honor would like us to submit that in some other way,

by e-mail or filing on the docket, we're prepared to do so, however you prefer.

THE COURT: I think filing on the docket makes a lot of sense to me.

MR. STRAWBRIDGE: We'll take care of that today.

THE COURT: Thank you.

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MR. STRAWBRIDGE: That's all I have, Your Honor.

**THE COURT:** Anything further?

MR. FITZGERALD: Good morning, Your Honor. Other than sharing the mutual appreciation on behalf of the University of North Carolina for the Court, the court staff, opposing counsel allowing us to proceed, we have nothing else to raise.

THE COURT: Thank you.

Anything from the Student-Intervenors?

MR HINOJOSA: David Hinojosa for the Intervenors, and the only thing -- and I'm not sure -- I probably should have visited with cocounsel before. If the Court intends to issue an order admitting the exhibits that we presented and agreed to, you know, by stipulation, if the Court wants to enter an oral order admitting all those exhibits en masse that are unobjected to. I don't know what the Court's practice and preference is regarding that.

THE COURT: All right. So are you asking that I do that before opening statements? I don't have a preference with respect to that at all.

1 MR. STRAWBRIDGE: No objection here, Your Honor. 2 parties already agreed as to the admission of all the exhibits 3 at this point. Whatever is most efficient is fine. But that 4 would be fine with us. 5 MR. FITZGERALD: We have the same view. 6 THE COURT: All right. Then I will issue an order 7 that indicates that all of the exhibits that have been agreed 8 to by the parties to be admitted are hereby admitted into 9 evidence. I won't go through the specifics because there are a 10 lot of them, but we will -- we will perhaps do a written order, but be it known that they are admitted into evidence at this 11 12 time. 1.3 MR HINOJOSA: Thank you, Your Honor. THE COURT: 14 Thank you. 15 THE CLERK: Did you tell me there was a typo in the 16 joint stipulation that you wanted to tell the judge? 17 MR. STRAWBRIDGE: That has been remedied in the copy 18 that we provided this morning, and it will be remedied in the one we file on the docket. 19 20 THE COURT: That's this? 21 THE CLERK: Yes, there was a typo. 2.2. MR. STRAWBRIDGE: There was a slight -- I say "slight" 23 because of the size. There's a representation in there about

the number of applicants in the data file, and it was off by

probably a few thousand, but we're talking about 200,000.

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we just corrected that number. 2 THE COURT: All right. I see. Thank you very much. 3 And that will be placed on ECF. 4 All right. With that said, I will now call on the 5 Plaintiffs to give their opening statements. MR. STRAWBRIDGE: Good morning, Your Honor, and may it 6 7 please the Court. 8 The United States Constitution guarantees the equal 9 protection of law to every person, regardless of race. The 10 University of North Carolina-Chapel Hill is bound to honor that 11 obligation in its admissions process. Indeed, the United States Supreme Court has repeatedly underscored that the use of 12 race in college admissions is, like all governmental racial 1.3 classifications, subject to strict scrutiny. The trial in this 14 15 matter, Your Honor, is to determine whether UNC can satisfy that demanding burden. The evidence will show that it cannot. 16 17 I know that Your Honor is familiar with the basics of the 18 admissions process at UNC from the summary judgment proceedings, as well as the parties' joint stipulation, but to 19 20 help frame our discussion, I did want to start with just an 21 overview of some of what the UNC admissions office does when it 2.2. decides who will pass through its gates. 23 UNC, like a number of universities, has adopted what is known as a holistic admissions process, meaning that admission 24

is supposed to be based on a consideration of the applicant's

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materials as a whole and not disproportionately shaped by one factor. Thus, UNC says test scores for one successful applicant may be lower than those for another because the second applicant may have some experience or factor in their life that makes them a potentially successful and valuable student, taking care of a sick parent or overcoming extreme financial circumstances or the like. So, according to UNC, they want to consider the entire file, or as they say in the reading document that guides their decisions, a copy of which is up here on the display: "The Committee has defined procedures designed to help the University achieve its mission by affording each candidate a series of comprehensive, holistic, and individualized evaluations."

That's what their guidance says. Now what does that mean in practice? Well, it means that when readers in UNC's admissions office are reviewing those files, they certainly look at and consider standardized test scores and teacher evaluation or teacher recommendation letters, guidance counselor recommendation letters.

They also assign some numerical ratings across a number of dimensions, and the evidence will show that the ratings they assign include, first, the performance rating. This is where they rate the student's academic performance: Their GPA, their class rank, whether their grades are improving as their high school career goes along. They assign a ranking of 1 to 10 to

these types of candidates, 10 being the highest.

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UNC also provides a program rating. This is where the reader of the file will rate the rigor and breadth of the academic course of study: Is the person taking challenging classes or easy classes? Are they maximizing the opportunities available to them at their particular high school? Again, this is ranked on a 1 to 10 scale.

The next category in which they provide ratings when they read a file is the extracurricular rating. The evidence will show that this is an assessment of an applicant's pursuits outside of the classroom. Did they achieve something notable in their personal life in a club or at work? This is also graded on the same 1-to-10-point scale.

The next rating is the personal rating: Is the applicant a curious, creative, kind, person with integrity? What kind of personality are they going to bring to campus? And although it uses similar numerical grades, there is a slight difference.

This one is assessed only with five potential scores: 1, 3, 5, 7, and 9. So it's on the ten-point scale, but there are only five scores assigned for the personal ranking.

The same is true with the essay ranking. This is an assessment of the essay that the candidates submit as part of their application. The grade is assigned largely on the substance of the essay, although organization and persuasiveness are factors that can be considered, at least

according to the reading document that is in evidence. And, again, this is assessed on the same 1, 3, 5, 7, 9 modified ten-point scale.

Now, there are also other parts of a file that UNC admissions officers can see. They can take into account a student's socioeconomic status: If they've asked for a fee waiver or perhaps they're known to attend a poor high school in the city. They look to whether someone is the child of a UNC alum, which will sometimes be referred to as a legacy. They'll look sometimes to see if they're the first generation of their family to attend college, and they obviously consider those who might have special talents, whether that's a musical instrument or they play a sport and are a recruited athlete at UNC.

But UNC also considers the applicant's race, and the way they consider race is important. It is not confined only to those cases when an applicant has described how they had to overcome some obstacle, such as personal experience of discrimination because of their race.

And this is disclosed in the reading document as well. You can see it here on the screen. It separately categorized consideration of an applicant's race or ethnic identification from one's life experiences, which is under number two in this list, or from number four, a demonstrated ability and motivation to overcome disadvantage or discrimination. These are all separate considerations.

And so what that means is that race in and of itself, independent of other circumstances, is something that UNC can and does take into account in deciding who to admit to its campus. Your Honor will hear and see testimony on this point. UNC admissions officers can consider an applicant's race, even when it is not mentioned anywhere else in the application file other than in the box the applicant checked at the time they applied. They can consider it at every single stage of the process, whether that's the first read, whether — if an applicant receives a second read or even in the later stages of the admissions cycle.

Moreover, UNC's use of racial preferences is focused on what they described as underrepresented minorities, or URM for short. That definition includes those who are African American, Hispanic, and Native American. It does not include those who identify as Asian or White.

Now, I'll discuss in a minute what the evidence is going to show regarding how UNC's deployment of these criteria in practice was, but first I think it's helpful to remind ourselves of the Supreme Court's requirements for universities like the University of North Carolina-Chapel Hill that have decided to use racial preferences in their admissions process, and the starting point is the Court's decision in *Grutter*. Seventeen years ago the Court set forth the framework; some points are excerpted here.

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As we've already discussed, the racial classification is subject to strict scrutiny. That means it must be narrowly tailored to further compelling governmental interests. And although not shown here, the Supreme Court has observed in Grutter that searching judicial inquiry into the justification for such race-based measures is required to determine what classifications are benign or remedial or what classifications are, in fact, motivated by illegitimate notions of racial inferiority or simple racial politics. In other words, strict scrutiny, in the words on the screen here, help "smoke out illegitimate uses of race by assuring that the government is pursuing a goal important enough to warrant the use of a highly suspect tool."

In *Grutter*, the Court held that achieving student body diversity could be a compelling governmental interest. That is a topic that we recognize is foreclosed by precedent. Your Honor has already issued an order on that aspect of the count in this case, and so it is not an issue for trial here.

However, that is only the first step in the strict scrutiny analysis that places the burden on UNC here. UNC still has to prove that its use of race advances that interest in a narrowly tailored way. In *Grutter*, the Court accepted the university's argument that it needed to use race in order to admit a critical mass of underrepresented minorities in order to further its interest in the educational benefits of diversity.

It, likewise, approved the same argument in *Fisher* where the University of Texas also linked its admissions policy to the need to obtain a critical mass of minority students. UNC must make the same showing here, and while UNC does not need to articulate a specific enrollment target or a quota to achieve that interest, it also cannot — as the Court said in its most recent pronouncement on this topic in *Fisher*, it cannot assert "an interest in the educational benefits of diversity writ large." That is insufficient. "A university" —

COURT REPORTER: Slow down, please.

MR. STRAWBRIDGE: I apologize.

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"A university's goals cannot be elusory or amorphous. They must be sufficiently measurable to permit judicial scrutiny of the policies adopted to reach them."

Whether UNC's use of racial preferences is narrowly tailored to advance an interest in enrolling a critical mass of the URM students is the first question to be answered at trial here.

The second question for trial goes to the weight that UNC gives to its racial preferences. Even where the Supreme Court has upheld the use of racial preferences, it has underscored that race must be used, quote, in a flexible, nonmechanical way. There must be true individualized consideration. The process cannot, quote, make an applicant's race or ethnicity the defining feature of his or her application, unquote.

Whether UNC can satisfy its burden and prove that its process complies with this command is the second issue for trial.

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The third and final inquiry that goes to the question of narrow tailoring is whether UNC can prove that it cannot achieve its goals through race-neutral means. In *Grutter* back in 2003, the Court made clear that universities must engage in serious, good-faith consideration of workable race-neutral alternatives. In *Fisher*, the Court reiterated that universities bear the burden of demonstrating that available workable race-neutral alternatives do not suffice; in other words, that a nonracial approach would not promote its diversity interest about as well and at a tolerable administrative expense.

That last part is important, Your Honor. It does not suffice for UNC to show that a race-neutral option would precisely replicate the specific characteristics of the current class. Just as UNC's use of race cannot be premised on a specific quota, it cannot reject a race-neutral alternative by treating the current characteristics — racial, academic or otherwise — as a hard floor. If there are alternatives available that come reasonably close, then UNC cannot simply dismiss them. Strict scrutiny requires the university to prove that available race-neutral alternatives do not come close to achieving the necessary critical mass of underrepresented minority students. And that will be the third and final

question to be addressed at this trial.

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With a clear understanding of the burden of proof that UNC carries here, I'll turn briefly to each of the questions that we just outlined and explain why the evidence will support Students for Fair Admissions on each of them.

We'll begin with whether or not UNC's admissions process is narrowly tailored to achieve a critical mass of minority students. *Grutter* and *Fisher* both approved of plans that were explicitly designed to achieve a critical mass of racially diverse students on campus. Both of those universities tied their interests to achieving critical mass and met their burden of demonstrating this goal was, in the Supreme Court's words, measurable and concrete, not elusory or amorphous.

The evidence is going to show otherwise here. Like its predecessors, UNC's reading document itself, here up on the screen, invokes critical mass as the reason why it provides racial preferences. It says here the university also aims to enroll critical masses of students who identify themselves as members of groups the university deems underrepresented. It's right there in their primary reading document that instructs people how to evaluate applications.

But the evidence in this case is going to show that UNC has made no further attempt to define critical mass, explain what it means or even to measure progress toward that goal. Indeed, multiple UNC witnesses reject the concept of even trying to

measure critical mass. And we have examples of that in the record already. The chancellor of UNC at the time, Carol Folt, testified that she does not know of any attempts to measure critical mass and does not even know what the term means. The university's former director of diversity and inclusion, Taffye Benson Clayton, testified the term was amorphous and that there was really not a way to make the determination. Barbara Polk, the assistant director of admissions, testified that there's no concrete definition. There's nothing that says when you get to X, you have reached critical mass. And Jared Rosenberg, one of the witnesses Your Honor will hear from at trial, will also testify that he has no understanding of how critical mass might be measured.

Other long-term employees of the admissions office are unable to even offer a broad definition of the concept of critical mass. You will hear from Ms. Jennifer Kretchmar, who will testify in her 14 years of working at the admissions office she has never had a discussion about what critical mass means or how it could be achieved on campus; and Michael Davis, another one of the witnesses Your Honor will hear from, will say the same thing. Yolanda Coleman, a former admissions officer, testified that she's never even heard the term in the admissions office, and it has no meaning to her in the admissions context.

Now, UNC's own admissions director, Steve Farmer, may claim

that critical mass is something the admissions office and the UNC administration are always thinking about, but the actual evidence will not support this assertion. He will testify that he does not recall any document that defines critical mass or looking at anything that might measure it more recently than 2006.

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UNC, thus, will be unable to demonstrate that its goals of critical mass are measurable and not elusory, that they are concrete and not amorphous.

That brings us to the second question, which is whether race is a predominant feature of UNC's admissions process. The evidence will show that it is. There are two types of evidence on this point, documentary evidence about UNC's own process, as well as the statistical evidence from data produced in this case. Both demonstrate the disproportionate weight that the Defendant places on race and confirm that UNC cannot satisfy its burden of narrow tailoring.

I'll start with the nonnumerical evidence. Although UNC's witnesses claim that race is just one aspect of many, its myopic focus on race goes far beyond any attention it gives to the representation of other aspects of diversity such as religion, such as sexual orientation, such as veteran status, and all the other dimensions they claim to value.

Until SFFA filed this suit, UNC created and distributed a periodic core report to track the process of its admissions

process. That report included information about the race of those who had applied and had been admitted, underscoring the heavy importance that those qualities played in UNC's process.

UNC also used to distribute that report with a comparison to the prior year's racial composition. You can see the reports, Your Honor, and you will be able to judge for yourself which other diversity-enhancing characteristics UNC prioritized to the same degree it is prioritizing race.

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There are also e-mails that underscore the extent to which applicants are commonly boiled down to their race. We have a couple of examples on the screen. This is an e-mail between an admissions reader and Mr. Rosenberg in which the reader notes that "The candidate is an AA female," meaning African American female, "and solid everything. That adds up to an admit for me."

We have another example. This is PX78. It notes that an admissions officer testified that they're going through a lot of trouble because the applicant is a biracial black-white male. There are a number of documents in the record that indicate a shorthand discussion of candidates boiling them down to their race.

The statistical evidence that Your Honor will see will confirm the overriding size of racial preferences that UNC is using. Students for Fair Admissions has obtained an economist, a professor at Duke, Peter Arcidiancono, to analyze six years'

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worth of data that UNC has produced in this case. Using standard logistic progression methodology accepted in his field and commonly relied upon by courts in cases of this type, Professor Arcidiacono was able to model the admissions process at UNC. That model allows him to determine the probability that a given candidate, controlling for all observable aspects, such as UNC's ratings, test scores, gender and race, among others — it allows him to determine the probability that an individual candidate could have obtained admission to UNC; and it allows us to see the weight that UNC actually gives to each of those factors. In other words, we can determine the size of the racial preferences that UNC deploys through the statistical analysis.

A few points about modeling. Professor Arcidiacono separately modeled UNC's in-state and out-of-state admissions process. And that's going to make a lot of sense because the two pools are very different. UNC faces a budgetary penalty under state law if it admits more than 18 percent — or if it enrolls a class containing more than 18 percent of nonresidents. This means that UNC is very careful to limit its admitted class and cap the number of out-of-state enrollees.

As a result, admission for UNC to nonresidents is significantly more competitive than admission for North Carolina residents.

The second point about the models: The models that Professor Arcidiacono will testify about show that his model is

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very accurate. They can accurately predict the admission decisions more than 90 percent of the time for both in-state and out-of-state admissions pools. The prediction of in-state admits is accurate in nearly 92 percent of cases. That's a level of accuracy that he'll explain is almost unheard of in economic circles. And what that means is that UNC's admissions process is highly formulaic. Key factors in the decision make it relatively easy to determine who will be admitted and who will be denied, and a predominant factor in that decision-making process is race.

You're going to hear plenty of detailed testimony from both sides about what the statistics say on this point. I'll focus here on just one example that you'll hear about from Professor Arcidiacono that will help quantify the size of UNC's racial references. One way to think about this is to take a candidate and, using the model, see what would happen to the admission probability for that candidate if you were to change only their race. We have an example of that here. Professor Arcidiacono will explain that you can take a hypothetical in-state applicant who is a male, non-first-generation college applicant who would normally, because of his characteristics, have a 10 percent chance of admission to UNC. If you hold all the other information about that hypothetical candidate constant but you change their race to African American, the model of UNC's admissions process shows that the chance that applicant

might be admitted jumps eight-fold.

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You can see the other examples for some other candidates with other probabilities here. If that same candidate were Hispanic, it would increase to 44 percent from 10 percent.

Out of state the numbers are even more striking. You can see here, for example, that a white female, non-first-generation student, sees the admissions process -- or admission probability go from 10 percent to 98 percent if you simply change the race of the applicant. That goes from a likely reject to an almost certain admit. Those are the sizes of the preferences that UNC is actually employing and is one in which the numbers tell the truth. Race is a predominant, if not the predominant, defining characteristic for thousands of applicants in UNC's admissions process.

Now, having seen the tremendous weight that UNC's process places on race, it brings us to the third question, which is whether UNC has seriously considered if there are race-neutral alternatives that would allow them to achieve their goals about as well without causing dramatic sacrifices on the quality of the class. And the answer on this point is that, yes, racial preferences are not the only way that UNC can achieve diversity of all kinds, including racial diversity, among its student body. There are other ways. As Your Honor may know, there are a number of states that have eliminated racial preferences and replaced with them with other methods. Michigan has done so.

California has done so. A ballot in Michigan -- to repeal that state law just failed by popular vote in California.

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Schools in these type of jurisdictions have explored other ways of obtaining the benefits of diversity without resorting to the highly suspect tool of racial classifications; and, indeed, the law requires UNC to make that same inquiry itself on an ongoing basis. The Students for Fair Admissions will present testimony from an education policy expert, Rick Kahlenberg, to testify about the numerous workable options that are available to UNC here.

Now, before I discuss the shortcomings of UNC's historical efforts on this front, I just want to return briefly to the standard set by the Supreme Court. Grutter has made claim that universities are required to give serious, good-faith consideration to workable race-neutral alternatives that do not result in the dramatic sacrifice of diversity or academic quality. In 2012, Fisher reiterated that a university must adopt any nonracial approach that would promote substantial interest about as well and at tolerable administrative expense. UNC's record on this front falls far short of the constitutional requirements. The entire record of its consideration consists of five efforts over the course of 17 years, none of which come close to the level of serious consideration that precedent requires.

The first effort is a spreadsheet that Steve Farmer ran at

his desk in 2007, four years after *Grutter*. This apparently involved the analysis of some statistics if UNC were to switch over to an academic-based criteria with some level of socioeconomic consideration. Frankly, I can't tell Your Honor much about this effort because Mr. Farmer will not be able to tell us much about that effort. He remembers hardy anything about the exercise. There's no record of a report or an analysis being circulated beyond his desktop of his computer, and he does not remember discussing it with a single other admissions employee.

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The second effort was a literature review in 2009 that Mr. Farmer assigned to Ms. Kretchmar to explore what other universities were doing as alternatives to using race.

Ms. Kretchmar is going to testify that she had no idea why she was tasked with doing this review, and that review never takes the necessary step of actually considering whether those alternatives could be implemented at UNC and what would happen if they were.

Now, as part of an advocacy piece defending its admissions process in the *Fisher* litigation, UNC prepared an analysis to support its current process; and in that analysis and in the amicus brief, UNC claimed — or UNC identified the fact that they're — a top-10-style admissions plan would actually improve the level of racial diversity at UNC, but it rejected this as insufficient because it would reduce average SAT

scores. Indeed, UNC told the Supreme Court that students who were admitted with those lower SAT scores would likely be overwhelmed by the curriculum at UNC. Now, believe it or not, Mr. Farmer will testify that he actually disagrees with what UNC told the Supreme Court on that point. But in any event, given that this was expressly prepared to support an advocacy piece, it hardly qualifies as a serious, good-faith consideration the Supreme Court and this law required.

In 2012, the university told the U.S. Department of

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In 2012, the university told the U.S. Department of Education, Office of Civil Rights, it would complete a race-neutral alternative analysis, a real one, and the department asked that it be completed within one year, by September 2013. The record will show UNC failed to take any steps to meet that deadline. It ignored that deadline. That deadline came and went without UNC conducting any serious, good-faith consideration of race-neutral alternatives. Its caviler treatment of its promise to the Department of Education aptly illustrates the lack of seriousness it has given to the Supreme Court's requirements.

Finally, in 2013, UNC actually convened a working group to analyze race-neutral alternatives. The record will show this group again fell well short of the Supreme Court's standards. It would meet only five times over a two-year period. It would disband in 2016, after adopting the very first draft of the report it issued without any changes.

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The report itself does not give serious, good faith-consideration to race-neutral alternatives, in part because Mr. Farmer instructed that committee only to explore alternatives that met or exceeded UNC's current level of racial diversity and other criteria. But as we've seen, that is not the Supreme Court's standard. It only requires that alternatives work about as well without creating dramatic declines.

Now, after this litigation advanced, UNC impaneled a new committee to study race-neutral alternatives, but you will not see any actual analysis from this committee during this trial. As of late 2018, it still had not prepared any analysis of race-neutral alternatives or even reviewed the expert reports submitted by the parties in this case.

And thus, 17 years after *Grutter*, UNC has not produced any evidence that its admissions office has actually engaged in a serious, good-faith analysis that meets the Supreme Court's standards. Even UNC's opposing expert in this case — and I submit an opposing expert report in contested litigation is not the kind of self-evaluation that the Supreme Court had in mind as a good-faith consideration of alternatives. But even she will concede that she is opining only on whether the alternatives precisely match UNC's current levels of diversity and academic achievement, was not opining on workability of those alternatives beyond that question. UNC bears the burden

of proof on this strict scrutiny. The evidence alone will warrant judgment against UNC on this point.

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Were there any doubt, Your Honor, UNC won't be able to show that there are a number of workable race-neutral alternatives available to UNC for its admissions process, you will hear testimony from Mr. Kahlenberg who worked with Professor Arcidiacono to model adjustments that UNC could make to its admissions process and achieve even greater diversity than it does today. These simulations will show that replacing UNC's massive racial preferences with a preference for those who are socioeconomically disadvantaged, along with some other adjustments, would allow UNC to maintain its current levels of racial diversity, even though that's not the standard the Supreme Court has set, and it would actually improve socioeconomic diversity, which is something that UNC itself allows as central to its mission. Doing so would not lead to any dramatic sacrifices in quality at UNC.

We have an example here of one of Mr. Kahlenberg's analyses that Your Honor will hear about, and it shows that using a race-neutral admissions policy, UNC could maintain the level of racial diversity, including the percentage of African American and Hispanic students. It would increase the percentage of students who come from disadvantaged families, schools and neighborhoods without affecting academic quality at all.

Mr. Kahlenberg will explain that there are numerous other

alternatives like this that could satisfy UNC's goals and which UNC has not demonstrated would impose any intolerable administrative difficulties.

The evidence is going to show then, Your Honor, this case does not present to the Court with the demand somehow to convert the UNC campus to a monolithic bastion without a meaningful minority population. UNC does not have to use racial preferences to achieve its goals. Students for Fair Admissions is not here advocating that UNC make its admission selection solely on the base of academic characteristics or even that it abandon its current admissions process. That is a false choice.

The evidence will show that UNC does not have to cling to its system of racial classification. It does not have to insist on using race for an indeterminate period in the future, setting de facto quotas of its current precise racial makeup. It does not have to center such a highly suspect tool as an institutional priority. That it chooses to do so in this day and age speaks volumes. The Constitution forbids UNC's unyielding commitment to racial preferences and the evidence will show that it is time for UNC to stop using applicants' race as a basis to deny them entry into its ranks.

Thank you, Your Honor.

THE COURT: Thank you.

Yes, sir.

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MR. FITZGERALD: Good morning, Your Honor.

THE COURT: Yes, sir.

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MR. FITZGERALD: This is a case about the right of the university to treat its applicants as whole people, not numbers. This is a case about the right of UNC, its choice to look at its applicants as the individuals that they are. It's plain and simple. UNC is proud to do that.

Now, we have heard a description of UNC's holistic admissions process, much of which I largely agree with. When UNC sees an application, they decide to look at every aspect of a person, what could be easily quantified, what cannot. look at the different facets of each applicant, yes, it includes race. It includes race and many other factors. UNC takes the student in high school who says, "I would like to come to your campus." They take apart the application. They know the person's name. They know where they're from in terms of residence between the in-state and out-of-state pool. But for the in-state folks, they know what part of the state they come from. They know what high school they went to, what level of courses are available, what level of courses they took. They know how they performed in classes. They know their test scores. And they also know their activities: Did they play volleyball? Did they write for in the student newspaper? Did they tutor?

They get letters of recommendation from teachers who know

that student in the classroom far better than the person trying to read through the file. They read about obstacles overcome, rate different determinations. They read essays that the students write about themselves, which both tells them information about the students, but also really indicates what the students think are important, which gives insight.

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At the end of that process, they decide, not based upon a grid, not based upon the formula that we'll talk about in a moment, because there is no formula — they decide who should be admitted and who should not. In that process, race is a factor to be considered, along with so many other things, including socioeconomic status and other aspects of diversity.

The goal of that process is for the UNC admissions staff to create a diverse campus, the best learning environment to pursue the educational benefits of diversity. Because the educational benefits of diversity is a legal phrase that we all use, it's sometimes easy to think of it as a catch phase or abstract, but it is real. It is real. You will learn that from the people who live it, breathe it, and deal with it every day. They are the folks who want to see an environment in which people of all different backgrounds can come to a classroom and learn from each other. Those witnesses will take the stand. They will talk to you about UNC's mission statement, their policies, their programs, what they do, what they don't do.

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But one point I'd like to make at the very beginning is we should not look at UNC's efforts to create the educational benefits of diversity as some effort by one group for a noble reason to give a gift to another group. This is an effort to enrich all, all the students, whether racially diverse or not, who enter a campus where the full richness of diversity will benefit. Think about the obvious. Think about a classroom where students go in to learn about American history. They're past grammar school or early high school where they learn dates and facts and figures. They want to learn what our country is about, where it's been, where it is, where it's going. Having a classroom filled with people from all different backgrounds who look at life through different lenses, look at our history through different lenses, how can that not be a compelling interest, to have a diverse classroom to exchange points of view, for folks to find out that the people they know from their dorm, who they like and respect, look at the world very differently. It can cause them to question their own views, wonder whether they could be wrong, wonder whether they and their classmate could somehow both be right. They have to learn how to navigate difference, different opinions in the classroom. That's important. It's important not just to the students but to the faculty, to keep them on their toes. We like to think of faculty as teachers because they are, but faculty are

also learners, and they're improved by having a more diverse courtroom -- classroom, whether it's history or other subjects.

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Diversity provides benefits outside the classroom, in the dorm rooms where people think they're not learning. I remember before I went to college, a friend of the family, an older man, told me, "You'll learn more out of the classroom than in the classroom." I thought that was the craziest thing I had ever heard. It took me years to appreciate it. The students who live in diverse dorms, go to the cafeteria or bump into different people carry with them quiet assumptions about how people different from them think or act. In those environments where there's diversity and backgrounds, and specifically including racial diversity, students learn from each other quiet assumptions that confront a different reality. People realize in many respects they may be different or think they're different. Then they're surprised in many other respects they're exactly the same.

That is the goal that UNC seeks properly to achieve through the effort of a holistic admissions process to achieve the educational benefits of diversity, and that diversity arms those students when they become graduates to go out into a real world where there's plenty of differences, difference in backgrounds and difference of thinking. They will be better equipped in a school that is diverse to beat those challenges. Diversity benefits all.

Now, if UNC's mission is to educate the citizens for the future -- future professionals, future citizens, future leaders -- how can they not energetically pursue all the benefits of diversity? For that reason, UNC has exercised its academic freedom to pursue the benefits of diversity through a holistic admissions process. We are proud to represent them in that effort.

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Now, if I could turn to the particulars of this case, as Your Honor is well aware, the complaint here gives us a roadmap, and it's filed in three counts, and those three counts are on the screen. I will focus first on Count III for the reason that, as Your Honor is well aware, that is not on trial before us today. We understand that the Plaintiff would like to eliminate the Supreme Court precedent that we believe fully endorses the practice that UNC engages in, to see people as who they are and where they are and treat them as individuals, and they'd like to end that. We strongly disagree. That is an important question for another day, another court.

What we're left with is to see whether or not UNC is complying with the current law. The first aspect of that is Count I. The question presented to the Court is whether or not UNC uses race as the predominant factor in the admissions process. We recognize that anytime that a university has to resort to considering race in the admissions process, that brings strict scrutiny. It should. We recognize that strict

scrutiny in the context of this case means that UNC has the burden of proof. We understand that. We embrace that. We will meet that burden of proof here at this trial.

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What we should be plain and clear about, though, is that the allegations in Count I are that, basically, UNC is cheating; they're looking at the current legal system and pretending to do one thing, holistic admissions, but really putting race before — before others. It's an allegation that holistic admissions is a sham.

Let me show you what I mean by a reference to the complaint by SFFA. In the complaint at page 7, the Plaintiff says with regard to universities, "they will use any leeway the Supreme Court grants them to use racial preferences in college admissions — under whatever rubric — to engage in racial stereotyping and other forms of discrimination to advance their social—engineering agenda. Strict scrutiny has proven to be no match for concerted disinformation hidden behind the veil of 'holistic' admissions."

Your Honor, you will see in this case UNC's admissions people aren't hiding behind any veil. They're engaging in legitimate holistic admissions.

The complaint goes on in different sections to frame how it is that the Plaintiff claims that UNC is cheating, and a particular process that we'll go through in just a moment is called school group review. I think it's a very important

insight into the process. Your Honor has read about it and will hear more about it, but I'll give a brief description.

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During the course of the admissions process, admissions readers read files and applications. Through a process we'll cover later, they come to tentative decisions near the end of the admissions process on all the people they think they will admit, all the people they expect to deny, and the people they expect to put on the waitlist.

At that point there's a different process called school group review where the university admissions folks get in a room, look at each applicant from a particular high school together. So if 20 applicants came from one high school in North Carolina, they line up the applications, compare them by grades, and say, "Can we reconcile all these decisions? Do they make sense? Why did the valedictorian not get in, if that's the plan? Why did a person whose grades are slightly lower get in?" That's a good question. There may well be great answers, because the person who has the third highest average may have so many different qualities. But they go through that process to make sure they can look the guidance counselor in the eye and say, "This all makes sense."

The second part of that process is important and very practical. You have to admit a certain size class. You don't want to admit too many and have no place to put them, and you don't want to admit too few. So the school group review

process, they also have to right-size the class.

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Now, according to SFFA, this is the place where UNC cheats:

And if you look at the allegations in the complaint, it says

UNC-Chapel Hill claims to use the SGR process for, among other

things, quality-control purposes. They point out that the

admissions director is aware of the projected racial

composition of the tentatively admitted students during the

process. You'll see why that makes sense, because different

folks have different yields of classes. And they say:

"Although UNC-Chapel Hill claims to use an applicant's race and

ethnicity only as one of many factors within its 'holistic'

system, statistical and other evidence establishes that race is

a dominant factor in admissions decisions...." And then they

point to the fact that race is the only nonacademic factor that

is known about an applicant during the school group review

process.

Now, let me pause there and agree with the Plaintiff on one thing. If UNC wants to cheat, this is the place to do it.

Think about the hypothetical where you are right about cheating the system, hiding behind the veil of holistic admissions, and you say, "You know, in this class we have too few black males. Let's get in a room at school group review where the final decisions are made and let's change some of this to fix that."

Their logic makes perfect sense if, but only if, people are cheating.

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We've had years of discovery, years of data, years of facts; and I will tell you right now, Your Honor, when we stand up at closing, there will be no evidence showing that UNC ever cheated at the school group review process. There will be no evidence that UNC ever cheated and used race to dominate the process at the waitlist. There will be no evidence that UNC cheated at any stage of the admissions process. This is an allegation they threw out that would make sense if UNC was cheating, but they're not. This is the dog that didn't bark.

Now, what really happened is UNC engaged in a proper, constitutional, lawful process to see people as people. Now, perhaps recognizing that, the Plaintiffs — the Plaintiff offers instead statistical evidence; and what I submit to you — you'll hear a lot about the statistical evidence in this case. I'll be happy to discuss that more in closing. When it comes to statistics, all that glitters is not gold. I'd ask Your Honor to consider that snapshot frame in your mind, if you can, the impression you had when you saw that chart about what we call transformation examples. At the end of the case, I want to return to that chart and discuss it with you.

To give you a few highlights, it's based upon a model with many faulty assumptions. Second, it is comparing hypothetical people who don't exist to other hypothetical people who don't exist. There is a holistic admissions process that looks at individuals and makes decisions. There is a mathematical

model, a little bit on steroids, that comes out and tells —
tries to tell this Court this is a formula that admissions
officers follow. They don't. It then predicts one
hypothetical person of one race and converts it into another,
and it makes a fundamentally flawed assumption that even that
model, if race and something else are correlated, that there's
causation. Sick people go to the doctor. The fact that
there's a correlation between being sick and going to the
doctor doesn't mean the doctor made you sick.

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The statistics in this case -- we're happy to meet them on the battlefield for statistics. They will call their experts. We will call our experts, a prominent economist from Stanford named Dr. Caroline Hoxby and a prominent economist from Harvard named Dr. Bridget Long, and we'll be happy to discuss what they have to say after you've heard from both direct and cross. But one thing I want to make very, very clear. We don't view this case as a battle of statistics or a battle at times to fight statistics. We view this case as a battle of facts.

If you're going to accuse the very fine folks at UNC in the admissions office of cheating, they're going to be here.

They'll sit in the witness stand, look you right in the eye.

They'll tell you what they do, and they'll tell you what they don't do. And we're firmly convinced that at the end of this case, you'll be convinced that they are honest people doing an honest job and not cheating the Constitution or anyone else.

At the end of this case, what you'll see with regard to

Count I is that UNC sees applicants as individuals and all

their different aspects, not as formulas, not as coefficients;

and the statistical measures on an artificial model don't tell

you what's going on with the admissions officers, in their

heads and in their actions.

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Now I'll turn to the Count II. Count II raises the question of whether or not Carolina could employ a host of race-neutral alternatives that could achieve student body diversity without resorting to racial preference. UNC would have you believe that the reason why UNC -- I'm sorry.

Plaintiff would have you believe that the reason that UNC had not identified a race-neutral alternative that works to date is because they're really not trying, they're phoning it in; they don't want to find one. That's their claim. The evidence will show that the reason why UNC hasn't found a race-neutral alternative that works about as well today is because there is none, not because of lack of trying.

Now, first of all, they give a very truncated view of what the efforts by UNC were to date, and you'll hear the testimony for yourself. I will point out a couple of things. They talked about some of the work that the people on campus have done, and you will see from those folks and hear from those folks from the witness stand.

They left out other efforts. For example, there are

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race-neutral strategies that people engage in. What I mean by that is you'll hear that one of the race-neutral alternatives they propose is to have increased financial aid or to increase recruiting or to work in partnership with the community. Well, that's not a race-neutral alternative in this case because it's not an alternative. UNC is engaged heavily with financial aid. You will learn that UNC has one of the most generous financial aid programs of any public university in the country. UNC is heavily engaged in recruiting. UNC is heavily engaged in community partnerships.

We're doing some of the things their expert proposes we should be doing, and they're telling us we're not trying. And they're dismissive of the hard work and excellent work done by the experts retained in connection with this case, the efforts by different committees, the efforts by people to pursue strategies. The efforts you will hear about our experts will convince you that there's a good-faith effort to seek to pursue race-neutral alternatives that work, but they haven't been found simply because they're not available today.

Let me put this in context with three things that help frame the issue. Mr. Strawbridge is right. There's a lot of schools out there. This country is a great big laboratory at times that allows for experiments, but I submit to you the evidence will show that no selective university in the country has someone found a race-neutral alternative that works to

date. Full stop. We stand behind that. And certainly no university has found a race-neutral alternative that works that would work in the context of UNC here and now given the demographics of the population and other factors that our experts will talk about.

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Second, it makes sense that it's difficult to find a race-neutral alternative. What is the process now? Sure there's some math. Sure there's some quantitative statistics, but a lot of it is qualitative. The human brain has learned how to assess other people. The essence of trying to find out about an applicant, view them as an individual and figuring out whether they will help to contribute to the various educational missions of the university involve judgment. It involves assessing those letters of recommendation. It involves assessing essays. It involves looking at different aspects. You can't just sort of say, "Well, let's figure out who lives in what ZIP code, and we'll let those folks in." When you carve out the nonquantitative aspects in the admissions process, you lose valuable information. You tie your hands behind your back. The admissions process is about people, not algorithms. You will see during the course of this case the algorithm on the right which starts to lay out the model that their expert says quides admissions decisions when any admissions officer would look at that document and wonder what in the world it is. This is an admissions process based upon

human people assessing other human beings in a legitimate way.

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Their process of converting things in a model, take human beings, blanch their individuality out of them, reduce them to dots on a graph, when UNC's process is the opposite. UNC sees dots on a graph and tries to understand individuals, and that's an appropriate process.

The third thing I would mention is that not only has no university successfully had a race-neutral alternative work, certainly not one that would work in the context of UNC, no court today has found a race-neutral alternative that works. People have been at this since Grutter and perhaps for a long time. As recently as last year, Judge Burroughs went through a thorough hearing in Massachusetts, listening to evidence in the Harvard case, listening to the same experts that SFFA will call before you in this trial. He concluded that there was no race-neutral alternative that would work in the context of Harvard. Now, that's not a binding decision on this Court, and each university has to look in its own context, but it tells you something: That this isn't easy.

We are confident at the end of this trial you will conclude that there is no race-neutral alternative that works for North Carolina and that the university has pursued those efforts and continues to pursue those efforts in good faith.

Now, Your Honor, the university, UNC, is clear. We wish we didn't have to consider race in the admissions process. When

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the day comes that the issues in our society will be resolved such that a race-blind admissions policy will populate our campuses with people rich from different environments, including racial diversity, we will all be elated. If the day comes in the interim where there are race-neutral alternatives that will work, work about as well to create the great, vibrant campus UNC seeks to create, that will be partial satisfaction. But we're not there on either front, not this day, not now, not at UNC. What's going on at UNC isn't people cheating. What's going on at UNC is people striving earnestly to create the best possible campus environment with the best possible students using their human judgment. They're doing the right thing for the right reason in the right way. At the end of this case, we will stand up, we will review with you how it is that school group review, that claim goes nowhere. We will review with you how the glitter of statistics doesn't undo the facts, that UNC is not cheating the admissions process. They're not hiding behind a veil. And we will review with you why it is that race-neutral alternatives are just not available to work at this time. We will ask you then to deny the request for the injunction and let UNC continue to do the right thing for the right reason in the right way. Thank you. THE COURT: Thank you.

MR HINOJOSA: Good morning, Your Honor. May it please

the Court. David Hinojosa on behalf of the Defendant Intervenors.

SFFA's far-reaching claims are not supported by the evidence in this case, and they are refuted not only by the substantial record that is already before the Court, through the exhibits that have been admitted and also through the presentation of the evidence that is expected from UNC, but also from the direct evidence that will be presented by Intervenors and Intervenor witnesses.

You will hear from students. The only students that you will hear from are from the Defendant Intervenors. SFFA, the Plaintiff in this case who argues that students are being unlawfully discriminated against, are not presenting any witnesses. They're presenting two numbers experts, which, as UNC has stated here, that's where they're reliant on substantially just purely numbers. But this case is much more than numbers. This is about people's lives. This is — as the Supreme Court has held, this is about building a stronger democracy, preparing students to not only study beside one another, to live beside one another, but also to work and participate in our democracy alongside one another. And it's imperative that the voices of students be heard in this case, and we appreciate greatly the Court's order allowing for that opportunity.

Now, the pictures of the eight people here on page 1 of

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Defendant Intervenor's Demonstrative Exhibit 1 show a wide range of students who have attended UNC, graduates from 1984 to 2020. There's also 15 other declarations in the record from people, sworn declarations, showing exactly how race remains a critical aspect of their identity and experiences, how UNC's limited but meaningful consideration of race in admissions meets the Supreme Court's strict tenets of strict scrutiny. These are children who are incredibly diverse, including children of emigrants from the Democratic Republic of Congo, from El Salvador, from Mexico; children descendants of fourthand fifth-generation Americans -- African Americans, some who are on the free and reduced-price lunch program, some who are children of professionals. But, again, the one common denominator is that race is an integral part of their identity and is something that SFFA, by its own claim, which it unabashedly asserts in Count III, wants to erase race entirely; and if it can't erase it, what it wants to do is essentially under-rule it. And its claim is largely based not on the Supreme Court precedent, but the dissents. So if you want to read the dissents and find out exactly how their case might progress, that's exactly where the persuasiveness of their argument lies, but that's not what the precedent is set by the Supreme Court. Now, the Court allowed us -- allowed the Intervenors to present evidence on two issues, and we'll be focusing on

presenting evidence on the critical mass aspect of it. We do have two expert reports already in the record, one on critical mass by Dr. Uma Jayakumar, which I will discuss here briefly, another one by Dr. Cecelski on the history of discrimination at UNC and in North Carolina. It's a sordid history that presents formidable foes for UNC in recruiting, retaining a more diverse student body. The evidence will show that despite progress being made by UNC and good-faith effort, certainly UNC is not there yet.

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The Court has already heard today a little bit about the compelling interests that, you know, students — universities have in attaining a diverse student body. It's important to understand also, and something that you did not hear, again, from Students for Fair Admissions this morning, is that there are incredible benefits that have been recognized by the Court promoting cross—racial understanding, breaking down stereotypes, reducing racial isolation, facilitating enhanced dialogue, preparing students for work in a diverse society. These are the incredible benefits that are beginning to be realized in many ways, but also remain absent, as the evidence will show.

Defendant Intervenors have in the record Exhibit DI1, which is an expert report by Dr. Uma Jayakumar. Her CV is in the record attached to her report. She's a well-accomplished, well-published, and well-researched educator in diversity in

higher education. What she did was she examined the extent of critical mass and how the university's efforts are in some respects accruing those benefits and also in some respects are where progress still needs to be made. She used the term "dynamic diversity" because she feels that critical mass itself has been reduced to just a pure numbers game, although when you read the Supreme Court's opinion, it certainly is not. It feels and it captures, you know, the numeric and environmental factors that create the conditions for holistic benefits.

So what does that mean? What does that look like? That essentially means that you're building a racial climate that would allow you to sustain the benefits of a more diverse student body. There are key elements to that; and they include, you know, the numbers and contextual factors, but it's really zeroing in on not just numbers, but whether or not persons are meaningfully participating on campus and in campus activities and whether there is actually cross-racial understanding. And so among the contextual factors here are multicultural programs and courses and students of different races actually dialoguing with one another.

And when there is substantial evidence of meaningful participation, cross-racial interaction, which aligns with the mission of UNC, then you have accrued, you know, the benefits that the Court has again and again recognized. The Court has again and again recognized that universities have struggled to

accrue these benefits despite their good-faith efforts at the University of Michigan Law School in *Grutter*, at the University of Texas at Austin through the *Fisher* case.

And the evidence will show that Professor Jayakumar surveyed substantial documents in her analysis, applying this framework, dynamic diversity framework, to the actual evidence in the case and reviewing substantial reports and campus surveys, looking at -- examining student declarations also that were submitted into the record.

And what were her findings? Her findings were that UNC has taken numerous concrete steps towards achieving this goal; that they, however, have significant obstacles to dynamic diversity, and that many of the obstacles are rooted in UNC's unique sociohistorical context; and that UNC, unfortunately, at this time has not yet achieved the conditions for dynamic diversity.

But it's not just the report of Dr. Jayakumar. It's not just the surveys that have already been submitted into the record, but it's also the testimony. So the Court will hear the testimony from eight witnesses, including five Intervenors about their experiences with overcoming obstacles, about their impact on — about diversity's impact on academic — on their academic education and their social interaction.

What was interesting this morning, what Students for Fair Admissions, you know, stated was that they suggested that, well, if you're going to look at race, you have to actually

identify some type of obstacle where your race played a role in it, and then perhaps you can consider it. The Supreme Court has never held that, not in *Fisher*, not in *Grutter*, not all the way back to *Bakke*. The Courts have recognized that race is a much more nuanced factor, and that it is not limited to those who have only experienced direct racism, discrimination, bias, and prejudice.

The -- it's important also for the Court to recognize that while the First Amendment right is grounded in the universities, and the Supreme Court, you know, has held that consistently, that right is grounded in the educational benefits that are flowing on campus between students, among students, and with the university administration itself in the broader community. And that's important because the students themselves will be providing testimony on the benefits that have accrued and their continuing struggles.

So we have Hanna Watson, the class of 2020. She identifies as black African American. She is currently attending Princeton and is in their master's degree program in the divinity college. Her ambitions are centered on bringing justice to African Americans because of the racial experiences that she had growing up, and she's relied on these discussions, on these dialogues within her classes, such as her poetry classes, and relied on that diversity to help improve her own worth. So it is adding to her critical thinking skills. She's

also noticed that in her nondiverse poetry classes the lack of diversity and the lack of life experiences has limited the discussion and the feedback.

Luis Acosta, who is from Hendersonville, North Carolina, the son of emigrants from Mexico, identifies as Mexican American, is currently a medical student in UNC medical college. He attended UNC. As a pre-med student, he was taking classes with racially and ethnically diverse students, and one of the classes that he took was -- and he will, you know, testify to this. One of the classes he took was a sociological class and among, you know, the discussion, he would -- ended up learning more and more about the different perspectives from the African American community and the students, you know, who were sharing some of their different perspectives as well; and all of that, you know, has helped inform his own perspectives. And he's going into the healthcare industry. We know how desperate the healthcare industry is on having diversity-informed knowledge and skills in that respect.

We also have the benefits of reducing isolation that the Court will receive evidence on. Laura Ornelas, who is from Chapel Hill and will be applying to graduate school soon to pursue her master's in education, she identifies as Hispanic and Latina. In high school, there were fewer Latinx students. She felt the need to blend in, to assimilate, rather than to be herself. When she got to UNC and she was attaining some of the

courses that she was attending that were much more diverse, she felt like she could participate more fully and didn't have to hide her own true self.

1.3

Star Bey Wingate [sic] is another student, class of 2016, who is now — who identifies as black. She is now in New York City working with a marketing and advertising firm. She will be testifying about being one of the few African American students in her classes and feeling like she was a fact checker every time there was an issue that came up about blackness. She seemed to have been reduced and isolated as the mere token spokesperson for the black community in those. She will testify about how that makes her feel alone and frustrated and how it ended up draining much of her own energy in having to assume that role.

Another benefit is breaking down stereotypes and biases.

You'll hear from Kenneth Ward, who is now an executive director for College Bound which actually helps mentor at-risk students. He identifies as black and African American. He's from Enfield, North Carolina. And he will talk about building these lasting relationships with white students who he had never affiliated with because when schools finally integrated in his community, all of these private schools popped up, and most of the white students ended up going to those private academies. But once he got to North Carolina and was able to engage and build relationships, you know, with many of these white

students, they both had the stereotypes broken down about each other.

1.3

But he also will testify about the importance of diversity within diversity, because it is important. There is no monolith of black students, for example, of being black, of being African American, of being Latinx. There are many different experiences and different cultures, you know, that must be shared and those must be valued. It's important that the Court receive evidence on the value of diversity within diversity as experienced, you know, by former students at UNC.

Luis Acosta also was able to break down stereotypes himself. People had assumed — they didn't know. They had assumed he was Asian American because he was in the pre-med program; and when they found out he was Mexican American and he was able to share his own story and his own values, he was able to break down those stereotypes as well. The Court will hear evidence from Luis.

And, again, from Star, on cross-racial understanding, she will talk about how she participated in one of the programs from UNC, Carolina United, and interacted with students of different racial and religious backgrounds. It was an eye-popping experience because she hadn't ever been immersed in such an environment, and it was -- ended up being one of the most impactful and meaningful experiences that she still carries to this day.

The benefit of making UNC more inclusive, who is leading this movement? Oftentimes Cecilia Polanco, class of 2016, who identifies as Latina and El Salvadorian American. She spoke of how she, when she first got — or she will testify to when she first arrived at UNC, she suffered from an imposter syndrome because she felt like a complete outsider, and it wasn't until she started being able to relate a little bit more with other students that were, you know, Latinx students, African American students who were also active on social justice issues; and they were able to help, you know, combine their efforts to help lead at UNC and make the university, you know, more effective at enrolling students of color as part of the recruitment program.

Andrew Brennen, who hails from Kentucky, is the class of

Andrew Brennen, who hails from Kentucky, is the class of 2019, and now is an education fellow at National Geographic. He identifies as black, and he, too, will talk about how students of color are leading the efforts to move UNC away from its Confederate past towards a more inclusive culture. And this is a really difficult issue that UNC, you know, continues to struggle and that the greater state of North Carolina, for that matter, continues to struggle, which brings us to Defendant Intervenors' Exhibit No. 2, which is the expert report by Dr. Cecelski, a historian.

Within his report, he made several observations about the University of North Carolina having been a strong and active

promoter of white supremacy and racist exclusion for most of its history. Some of his other observations show that the founding -- you know, three of the four original trustees were slaveholders, while 69 percent of the occupants in North Carolina at that time did not own slaves; that when reconstruction happened, there were several trustees playing roles in the KKK; that even after Brown v. Board, so fast-forward to 1954, the university continued to repel efforts for decades after. 

And it's important because that lays a foundation. That foundation is not silent. That foundation, you know, has become public, you know, through the history and storytelling of this tragic place in time for UNC and the greater state of North Carolina; and it creates a formidable foe in recruiting and retaining a more diverse student body.

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The Court will also hear from Kenneth Ward, again about his own experience of being the first black mic man, the person who ends up trying to get the crowds at football games excited and involved in the game, you know, with different cheers. And, unfortunately, when he decided to try and use some of his platform to speak about social and racial injustice, he was asked to step down by the administration. He will also testify about the -- his own experiences as a student marching for more black faculty -- tenured faculty at UNC because there were so few at the time.

you will also hear from Rimel. So you fast-forward 34 years from 1984 to 2018. And Rimel is now doing public health and research at -- under a grant by the National Institute of Health, the Duke Global Health Institute. She identifies as black and African American, and from the Democratic Republic of Congo. She has, you know, experiences both in middle class and -- being part of the upper middle class now, but also having, you know, more challenged experiences, you know, with her family previously. And she will testify about how she has experienced multiple instances of overt racial aggression at UNC, including being called the N word, including being told when she went to a party that no slaves were allowed.

The present-day effects of racial discrimination and segregation unfortunately still find themselves at UNC and its campus. When this case was filed, more than half a dozen buildings on the campus still bore the names of the white supremacy campaign leaders. It is, in the words of one of the Student-Intervenors, the racist wall of graffiti that reminds students of where they're at and where their history still plays a role today.

In recent decades, the university's faculty and administration, again, has made important strides, but it continues to struggle with these issues. The fight to remove the Silent Sam statue is only, you know, one of the latest and more public pieces of contention that, unfortunately, you know,

many on campus had to, you know, experience. And it's not just the fact that this is, you know, some type of, you know, political issue. Of course, you know, it's beyond that. But it's also been ingrained, you know, through the state's own statutes such as that, you know, shown here at 100-2.1 that show that a monument, a memorial or work of art owned by the State may not be removed, relocated or altered in any way without the approval of the North Carolina Historical Commission. So the legislature itself, the leadership itself has made sure that if any of these statues are going to be removed, they have to go through a process first, a very politicized process, unfortunately.

And instead of recognizing, you know, many of these challenges that face students on campus, the Plaintiffs mentioned at the hearing the other day about how when they were trying — at the final pretrial hearing when they were trying to get additional evidence to support their mismatch theory, this mismatch theory is rooted in racism. It suggests that by allowing black and brown students with lower test scores that you're just setting them up to fail because that number on that test score reflects all of their grit, all of their determination, and all of their values. They don't suggest that that is something that might apply to white students. It's black and brown students. Of course there's no precedent that suggests that mismatch theory is actually relevant, you

know, to the claims here.

But what you will also hear, Your Honor, is evidence from Student-Intervenors, some who had lower test scores, some who had lower GPA scores, but also through UNC's holistic admissions process, they were able to identify these super talented, well — highly qualified students of color, and the incredible benefits that not only they would bring, but they could also experience. There's no credible evidence in the record that students of color with lower test scores are failing out of UNC. In fact, hundreds of white students — the record will show that hundreds of white students are admitted into UNC with lower standardized test scores.

This argument of the same -- of the mismatch theory was also raised in *Grutter* and *Fisher*; and, again, you won't find it in the precedential opinions, the majority of opinions of that, but you will find it discussed in the dissenting opinions.

Mr. Blum has made it no secret that he wants to erase race entirely from the process.

I think I'm about at that time.

So, indeed, much work continues. It is still needed. The Plaintiff's strategy, again, is no secret. They want to eliminate race or at least make it so irrelevant that no university would be willing to pursue it. The Intervenors respectfully request that you deny all the relief requested by

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Plaintiffs and assert that the evidence will definitely
 2
    demonstrate and support that.
 3
        Thank you, Your Honor.
 4
             THE COURT: Thank you, sir.
 5
        I am assuming that our first witness is going to be fairly
 6
    lengthy; is that correct?
 7
             MR. STRAWBRIDGE: Yes, Your Honor. Maybe not the
 8
   whole time we reserved, but it will be 45 minutes at least.
 9
             THE COURT: All right. I am going to -- we will at
10
   this point take our morning recess. Let us now recess for 15
11
   minutes.
        (A morning recess was taken from 11:05 a.m. until
12
   11:20 a.m.; all parties present.)
13
14
             THE COURT: All right. At this time the Plaintiff can
15
   begin its case.
            MR. STRAWBRIDGE: Your Honor, the Plaintiffs call
16
    Jennifer Kretchmar.
17
18
             THE COURT: All right. If you would come forward,
   please.
19
            JENNIFER KRETCHMAR, PLAINTIFF'S WITNESS, SWORN
20
21
                          DIRECT EXAMINATION
22 BY MR. STRAWBRIDGE:
23
             THE COURT: Yes, sir.
   Q. Good morning, Ms. Kretchmar.
24
        Good morning.
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- $\mathbb{L} \parallel \mathbb{Q}$ . Could you tell the Court your current title?
- $2 \parallel A$ . I am the associate director for research in the Office of
- 3 Undergraduate Admissions at the University of North Carolina at
- 4 Chapel Hill.
- $5 \parallel Q$ . And how long have you been at UNC-Chapel Hill?
- 6 A. Eighteen and a half years.
- $7 \parallel Q$ . And have you held that position for the entirety of your
- 8 | time there?
- 9  $\|$  A. I was previously the senior assistant director of research.
- 10 I was promoted to associate director in 2017.
- 11 | Q. But the entirety of your time at UNC has been in the
- 12 | admissions office?
- 13 A. Correct.
- 14 MR. STRAWBRIDGE: Your Honor, I have spoken to
- 15 opposing counsel about this, and I just want to make sure the
- 16 Court is okay. Given her employment, we would like to proceed
- 17 | with her as an adverse witness, although, of course, we will be
- 18 polite and respectful in doing so.
- 19 **THE COURT:** Anybody care to be heard?
- 20 MS. VAN GELDER: No objection, Your Honor.
- 21 THE COURT: All right. Yes, sir.
- 22 | Q. (By Mr. Strawbridge) Part of your role in the admissions
- 23 office is to read applicant files; is that correct?
- 24 A. That's true.
- 25  $\parallel$  Q. And also to help recommend admissions decisions after

- l | reading those files, correct?
- 2 A. Yes.
- 3 | Q. And you're familiar with the training materials that are
- 4 used in the admissions office?
- 5 A. Yes.
- 6 Q. And are you familiar with the document that's known as the
- 7 | reading document at UNC?
- 8 A. I'm familiar with it.
- 9  $\parallel$  Q. Okay. We have on the stand with you there a three-ring
- 10 | binder that has a number of exhibits in there. I think we're
- 11 also going to project this on the screen, but I'm going to
- 12 | refer you to an exhibit that's been admitted called PX108.
- 13 MR. STRAWBRIDGE: Are we able to get that on the
- 14 screen? Okay.
- 15 THE WITNESS: Okay.
- 16 | Q. (By Mr. Strawbridge) Do you recognize this document,
- 17 Ms. Kretchmar?
- 18 A. It looks like what you've referred to as the reading
- 19 document.
- 20 0. Okay. And the title of this document, the third line that
- 21 | we've got highlighted here on the screen, is the "Foundations
- 22 | and Practices Regarding the Evaluation of Candidates, " correct?
- 23 A. I see that, yes.
- 24 Q. And this document is provided to all of the admissions
- 25 officers at UNC at some point in their training?

- A. I believe so. I believe it's shared in training.
- 2 Q. I want to just ask a few questions generally about the
- 3 admissions office and refer to this document as we go through
- 4 | throughout.
- 5 UNC has as one of its institutional goals achievement of
- 6 critical masses of underrepresented populations; is that right?
- $7 \parallel A$ . One of our goals is diversity, yes.
- 8 || Q. And if you look at the bottom of the second page of this
- 9 document, do you see where it references as an institutional
- 10 goal the "achievement of critical masses of underrepresented
- 11 populations"?
- 12 A. Yes, I see that.
- 13 Q. It goes on to indicate that "...since the absence of such
- 14 critical masses 'impedes the educational process' and 'can
- 15 place undue pressure on underrepresented students and interfere
- 16 | with all students experiencing the educational benefits of a
- 17 diverse learning environment.'"
- 18 | Is that what this document says?
- 19 A. Yes.
- 20 | Q. If you go down a little bit further on this page, you note
- 21 | the reference to a Faculty Advisory Committee on Undergraduate
- 22 | Admissions?
- 23 A. It's referring to the Faculty Council on the screen right
- 24 now. I'm not sure where in the document you're pointing to.
- 25  $\parallel$  Q. I'm sorry. Just above the title. And I apologize. We can

- move the page up a little bit.
- 2 Do you see the reference to "Guidance of the Faculty
- 3 | Advisory Committee on Undergraduate Admissions"?
- 4 | A. Yes.
- 5 | Q. You're familiar with that committee, correct?
- 6 A. Correct.
- 7  $\|Q$ . That is the primary faculty administrative committee that
- 8 has responsibility for the admissions office?
- 9 A. Yes.
- 10 | Q. And this guidance from the Faculty Advisory Committee on
- 11 Undergraduate Admissions reviewed and endorsed a faculty
- 12 statement from the Faculty Council in April 1998, correct?
- 13 A. Based on this document, I would agree with that statement.
- 14  $\parallel$  Q. Right. And that statement that the committee for --
- 15 | Faculty Advisory Committee on Undergraduate Admissions endorsed
- 16 | and adopted was that "diversity 'in its many manifestations'
- 17 | was essential to the fulfillment of the University's
- 18 | educational and service missions..., " correct?
- 19 A. Yes.
- 20 Q. And it then goes on to refer to "an expansive notion of
- 21 diversity required that admissions decisions include" a number
- 22 of criteria. Would you agree?
- 23 A. Yes.
- 24 Q. And this is criteria that you're generally familiar with
- 25 from your work in the admissions office, correct?

- lacksquare lacksquare
- 2 | Q. And so among the criteria that's listed in this, if you go
- 3 down to No. 3, are factors that contribute to a diversity of
- 4 presence, right?
- 5 A. I see that, yes.
- 6 Q. And so some of the factors that contribute to a diversity
- 7 of presence, according to this reading document, are age,
- 8 | right?
- 9 A. That is listed in the document, yes.
- 10 | Q. Economic circumstance?
- 11 | A. Yes.
- 12 | Q. Ethnic identification?
- 13 A. Correct.
- 14 | Q. Family educational attainment?
- 15 A. Yes.
- 16 Q. Can I just ask, does that refer to the concept of
- 17 | first-generation college?
- 18 A. It could, I suppose, at any level of educational attainment
- 19 | in the family.
- 20 Q. It also refers to disability?
- 21 A. Correct.
- 22 Q. It refers to gender, correct?
- 23 A. Yes.
- 24 Q. It refers to race?
- 25 A. Yes.

- $\mathbb{I} \mid \mathbb{Q}$ . It refers to religion?
- 2 A. Correct.
- $3 \parallel Q$ . It refers to sexual orientation?
- 4 A. Yes.
- 5 Q. It refers to social position?
- 6 A. Yes.
- $7 \parallel Q$ . And veteran status, correct?
- 8 A. Correct, uh-huh.
- $9 \parallel Q$ . And although it's not on this list here, you also
- 10 understand the expansive notion of diversity in the admissions
- 11 office to include things like political viewpoint, correct?
- 12 A. I would agree with that, yes. I mean, it's not limited to
- 13 the things listed here necessarily.
- 14  $\parallel$  Q. Would you also agree -- and I can refer you to the top of
- 15 the following page -- that UNC, in its evaluation of candidates
- 16 for admission, does not seek to maximize the average SAT score
- 17 or eventual GPA of the entering class?
- 18 A. I would agree with that.
- 19 | Q. That's an accurate statement as to how the admissions
- 20 process works at UNC, correct?
- 21 A. That's not one of our goals, correct.
- 22 | Q. If we go a couple pages down on this document, there's a
- 23 | section that's actually entitled "Race, Ethnicity, and National
- 24 Origin." Mr. Weir will scroll to that here in a second.
- 25 Do you see that section?

- A. Yes.
- $2 \parallel Q$ . And this section indicates that race, ethnicity or national
- 3 origin may be used at any stage in the admissions process,
- 4 | correct?
- 5 A. Correct.
- $6 \parallel Q$ . That's the guidance that admissions officers are given?
- 7 A. Yes.
- 8  $\parallel$  Q. And if you go down a little further in this section, we see
- 9 again a reference -- and it's the top of the next page -- that
- 10 "...the University...aims to enroll critical masses of students
- 11 | who identify themselves as members of groups the University
- 12 deems underrepresented." Is that accurate?
- 13  $\|$  A. I see that sentence, yes.
- 14 | Q. And is that an accurate reflection of what the admissions
- 15 process does?
- 16 A. We are trying to enroll a diverse class to achieve the
- 17 | educational benefits of diversity, yes.
- 18  $\parallel$  Q. And in particular when it comes to racial diversity, the
- 19 university does focus on underrepresented minorities?
- 20 | A. That is one of the things we focus on, yes.
- 21 Q. And sometimes in the admissions office that's abbreviated
- 22 | to URM?
- 23 A. Occasionally, yes.
- 24 | Q. And URM, for purposes of the admissions office, it says
- 25 here in this document, is defined specifically, correct?

- 1 A. According to this document, I believe it is, yes.
- 2 | Q. And it's defined to include those who identify themselves
- 3 as African American or black, correct?
- 4 | A. Yes.
- $5 \parallel Q$ . As well as American Indians or Alaskan Natives?
- 6 A. Correct.
- $7 \parallel Q$ . As well those who identify as Hispanic, Latino or Latina,
- 8 | correct?
- 9 A. Yes.
- 10 Q. The next section in this document refers to socioeconomic
- 11 status. Do you see that?
- 12 | A. Yes, I do.
- 13 Q. And the statement in this document is that: "The
- 14 | University works strongly to attract and retain disadvantaged
- 15 students, regardless of race."
- 16 Do you think that's true?
- 17 | A. I do.
- 18  $\parallel$  Q. And that: "This is," in fact, "a critical component of the
- 19 institution's obligation to the State of North Carolina and,
- 20 | indeed, to the nation."
- 21 Do you agree with that statement?
- 22 A. Yes, I think socioeconomic diversity is important to us.
- 23 Q. And you would agree with me that the University of
- 24 North Carolina, in this document and elsewhere, prioritizes
- 25 | socioeconomic diversity in its admissions process, correct?

- 1  $\parallel$  A. I don't know if I agree with prioritizes. Relative to
- 2 | what? I'm not sure I would be in a position to say.
- 3 | Q. Well --
- 4 A. It's important to us.
- 5 | Q. I'm sorry. I didn't mean to interrupt you. Was your
- 6 answer it is something that is important to you at the
- 7 | admissions office?
- 8 A. Yes, yes.
- 9 | Q. Okay. Now --
- 10 MR. STRAWBRIDGE: And we can take the document off the
- 11 | screen.
- 12 Q. (By Mr. Strawbridge) You've read admissions -- I'm sorry.
- 13 When applicants provide their admissions documents to UNC,
- 14 | there's a lot of information in those files, correct?
- 15 A. Yes.
- 16 Q. And some of that information relates to things that we just
- 17 | saw. For example, students generally provide or you can
- 18 discern the gender of a student from the admissions file,
- 19 | correct?
- 20 A. That's true.
- 21  $\parallel$  Q. And the same thing with respect to their race or ethnic
- 22 | identification, should they choose to disclose that
- 23 | information?
- 24  $\parallel$  A. Should they choose to report it, yes.
- 25  $\parallel$  Q. You can generally identify whether or not they're the child

- 1 of an alum of UNC?
- 2 A. Yes.
- 3  $\|$ Q. Obviously, you can identify their test scores?
- 4 | A. Yes.
- $5 \parallel Q$ . The admissions office also tracks certain indicators of
- 6 socioeconomic status; is that fair to say?
- $7 \parallel A$ . We have information in the file that might give us
- 8 | information about socioeconomic status, yes.
- 9 Q. UNC can generally see, for example, if somebody has
- 10 requested a waiver of the application fee to apply to UNC,
- 11 | right?
- 12 A. Correct.
- 13 Q. And what is the current application fee?
- 14 A. I believe it's \$85.
- 15 | Q. And in addition to the material that may be gleaned from
- 16 the file -- well, strike that.
- 17 Applicants also provide teacher recommendations with the
- 18 | file?
- 19 A. Yes.
- 20 Q. They also provide an essay?
- 21 A. Correct.
- 22 Q. And readers are responsible for reviewing those files and
- 23 assigning a number of ratings, correct?
- 24 A. We do have ratings, yes.
- 25 Q. And the ratings that are assigned by the reviewers include

- $\mathsf{L} \mid \mathsf{I}$  the program rating?
- 2 A. Correct.
- 3 Q. Performance?
- 4 A. Yes.
- 5 | Q. Extracurricular?
- 6 A. Yes.
- 7 Q. Personal qualities?
- 8 | A. Yes.
- 9  $\mathbb{Q}$ . As well as essay?
- 10 A. We no longer rate the essay score.
- 11 Q. When did you stop rating the essay score?
- 12 A. I believe two years ago.
- 13 Q. Up until two years ago, the readers would have assigned a
- 14 | score for essay, correct?
- 15 A. Yes.
- 16  $\parallel$  Q. Starting with program, that rates the course of study that
- 17 | a particular applicant has taken; is that fair?
- 18 A. It's a rating of the rigor of the course of study,
- 19 | specifically with respect to college-level courses pursued
- 20 during high school.
- 21 Q. So that refers to things like AP classes or international
- 22 | baccalaureate classes?
- 23 A. Correct, in addition to dual enrollment.
- 24 | Q. In other words, a student who is both enrolled in high
- 25 school and taking college courses at a local college, for

- example?
- 2 A. Right.
- 3 | Q. And is the numerical rating that's assigned for program
- 4 | hinged specifically to the number of those classes they've
- 5 | taken?
- 6 A. To a certain extent. The "10" captures any student who has
- 7 taken ten or more, and the lower end of the scale is similarly
- 8 compressed. So a "1" is actually someone who has taken no
- 9 college-level courses, and I believe a "2" is someone who has
- 10 | taken one or two.
- 11 Q. Beyond the number of courses of college-level or advanced
- 12 courses that an applicant has taken, is there any other factors
- 13 | that go into the program rating?
- 14 | A. No.
- 15 Q. Performance rates the academic performance of an applicant,
- 16 | correct?
- 17 A. Correct.
- 18 Q. And that rating -- and I should have said this before.
- 19 | Both program and performance are assigned on a ten-point
- 20 | rating?
- 21 A. Yes.
- 22 Q. So a "10," for example, on performance would be a student
- 23 who achieves straight As?
- 24 A. Yes.
- 25 Q. And a "9" would be a student who has one or two Bs on their

- transcript?
- 2 A. Correct.
- 3 | Q. Extracurriculars is another rating that's assigned?
- 4 | A. Yes.
- 5 Q. On the same ten-point scale?
- 6 A. I think it's a five-point scale now, but I'm not entirely
- 7 | sure when that change was made, two or three years ago.
- 8 Q. So within the last couple years?
- 9 A. Yeah.
- 10 Q. Perhaps since the last time you and I spoke?
- 11 A. Maybe.
- 12 Q. In any event, extracurriculars rate an applicant's
- 13 activities outside of the classroom; is that safe to say?
- 14 | A. Yes.
- 15 Q. Whether that's a club or work?
- 16 | A. Any kind of extracurricular activity: Family
- 17 | responsibilities, work, school activities.
- 18 Q. Are there any other ratings that are assigned? I have
- 19 essay here in my outline, but I think we have already discussed
- 20 the fact that that's no longer assigned.
- 21 A. The PQ rating.
- 22 Q. Oh, personal rating, yes. Thank you very much.
- Is that also rated on the same five-point rating that we
- 24 discussed earlier?
- 25 A. It has been. I believe now it's a three-point scale.

- 1  $\mathbb{Q}$ . Okay. So it's been even further compressed?
- 2 | A. Yes.
- $3 \parallel Q$ . And what would be the ratings that are actually assigned
- 4 | for the PQ rating?
- $5 \parallel A$ . 1, 3, 5, 7, 10 was what it was previously.
- 6  $\|$  Q. Would it now just be -- do you know what the three are now?
- 7 A. I think it's 3, 5, 7.
- 8 Q. Okay. After assigning those -- well, strike that.
- 9 UNC, I think you testified, provides training to its
- 10 | admissions officers; is that correct?
- 11 A. Correct.
- 12 Q. One of the things that UNC does as part of its training is
- 13 some rough quality checking to try to make sure that the
- 14 | ratings are being assigned on a roughly fair and evenhanded
- 15 basis?
- 16 A. I would say that's true, but our ratings don't equal a
- 17 decision. So we're probably more concerned about the quality
- 18 of the decision than we are the ratings.
- 19 Q. Any occasion in the past have you reviewed, you know, first
- 20 reads in part to make sure that the ratings seem to fall within
- 21 the realm of what you think are reasonable ratings?
- 22 | A. I mean, it's one thing we look at. But, again, I don't
- 23 think we spend a lot of time worrying about whether people are
- 24 completely aligned with the ratings.
- 25 | Q. After a reader reviews the application, assigns these

- ratings, and completes their review, they make a tentative admissions decision, correct?
- $3 \parallel A$ . The first reader would make a decision on the file, yes.
- $4 \parallel Q$ . And at that point in time, as they're reviewing the file,
- 5 assigning their rating, they can consider, among other things,
- 6 the race of the applicant, correct?
- $7 \parallel A$ . Race is one factor that we consider among many, yes.
- 8  $\parallel$  Q. And then for some applications a second reader will review
- 9 the file, correct?
- 10 | A. Yes.
- 11 | Q. And at that point, the second reader basically can engage
- 12 | in a complete review of the file; is that right?
- 13 A. Yeah, they do another comprehensive holistic review, and
- 14 they can either agree or disagree with the decision of the
- 15 | first reader.
- 16  $\parallel$  Q. And as part of that review, they can take race into
- 17 | account, correct?
- 18 A. Yes.
- 19 Q. Eventually, as the process proceeds, the admissions
- 20 decision will proceed to the phase known as school group
- 21 | review?
- 22 A. Yes, decision review, school group review.
- 23 Q. And that review process involves a smaller number of
- 24 | admissions officers in the office reviewing the tentative
- 25 | admission decisions?

- A. It typically involves more experienced readers reviewing decisions, yes.
- 3 | Q. And what they actually do is they divide up the high
- 4 schools who have -- from whom the applicants have come to UNC,
- 5 | correct?
- 6 A. In some cases. I think in out of state. We sometimes look
- 7 state by state. It depends.
- 8 | Q. Let's just talk about the in state just to keep it simple.
- 9 A. Okay.
- 10 Q. For the in state, for example, one reader will review all
- 11 of the admissions decisions with respect to applicants from a
- 12 particular high school?
- 13 A. They will review them, yes.
- 14 Q. And during that stage, readers can engage in the full
- 15 | holistic review of the file; is that right?
- 16 A. That's right.
- 17  $\parallel$  Q. And that means that they can consider an applicant's race
- 18 at the school group review stage, correct?
- 19 A. Correct.
- 20 | Q. And you've participated in the school group review process
- 21 | before?
- 22 | A. I have.
- 23 Q. And during the school group review process, if a reviewer
- 24 wants to know something about the applicant, they can easily
- 25 access all the information in the applicant's file?

- 1 A. The same way they would on a first read or a second read, 2 yes.
- 3 Q. So they can obtain information about the race or ethnic
- 4 | identity of the applicant?
- 5 | A. Yes.
- 6 Q. And school group review reports used to include in a
- 7 summary report at the beginning the applicant's race, correct?
- 8 A. I believe that's true, yes.
- 9 Q. Up until, you know, sometime after 2012, 2013? Does that
- 10 | sound right?
- 11 A. I believe that's right.
- 12 | Q. Now, remind me again -- I apologize. I forgot already.
- 13 What is your actual title?
- 14 A. Associate director of research in the Office of
- 15 Undergraduate Admissions.
- 16 Q. And with -- your role in research includes other
- 17 | responsibilities at the university besides reading files,
- 18 | correct?
- 19 A. Correct. In addition to reading files and helping recruit
- 20 | applicants, I respond to external and internal data requests.
- 21 | I might conduct surveys, focus groups. I've studied whether
- 22 the factors we take into account when we read applications
- 23 predicts student success at Carolina. I help with the yield
- 24 | model.
- 25 Q. And so you were the primary person in the admissions office

- 1 that processes and analyze data regarding admissions
- 2 | applications?
- 3 A. I would certainly say I was one of the people doing that,
- 4 yes.
- $5 \parallel Q$ . And I just want to talk a little bit about some of the
- 6 databases that UNC uses. At least until 2017, there was a
- 7 database known as Carolina Connect; is that right?
- 8 | A. Yes.
- 9  $\|$  Q. That was what housed the data concerning applications to
- 10 | UNC?
- 11 A. Correct.
- 12 Q. And that data basically arose from the application form
- 13 | that the students themselves would fill out when applying to
- 14 | UNC?
- 15 A. From The Common Application, yes.
- 16  $\|$ Q. As well as any other information that UNC may have
- 17 | requested?
- 18 | A. I'm sorry?
- 19 Q. Would it also include any additional information besides
- 20 the normal Common App? Does -- let me strike that.
- 21 Does UNC also request additional information beyond The
- 22 | Common Application?
- 23 A. Not -- no, I don't think so.
- 24 Q. Okay. So the information in Carolina Connect is just from
- 25 | the Common App?

- A. Right.
- $2 \parallel Q$ . Would Carolina Connect also include, for example, the
- 3 | ratings that you -- that admissions officers provided regarding
- 4 applicants?
- 5 A. I believe it did. I couldn't say with a hundred percent.
- 6 | I believe so, yes.
- $7 \parallel Q$ . So you would be able to gather data on those ratings as
- 8 | they were added for each particular applicant in the database?
- 9 A. Right.
- 10 Q. I assume -- well, strike that.
- 11 At least back at the time of 2017, you would be able to
- 12 download the flat files of data from Carolina Connect?
- 13 A. Yes. We had a daily download of application data from
- 14 Connect to an Excel file.
- 15 Q. And that Excel spreadsheet would just basically show in an
- 16 | aggregated data format all of the data that UNC had obtained or
- 17 provided so far from these applicants?
- 18 A. It wasn't an aggregate data. It was individual-level
- 19 student data, and it was housed on a secure drive that only a
- 20 | few people in the office had access to.
- 21 | Q. And I believe you said this, but you would receive those
- 22 | flat files daily?
- 23 A. They were extracted daily and put on the drive -- the
- 24 | secure drive. I wouldn't necessarily look at them daily,
- 25 || but --

- 1  $\mathbb{Q}$ . They were available to you?
- 2 A. Yes.
- 3 | Q. And one of the things that you would do with the data that
- 4 you had access to in the admissions office is respond to
- 5 | requests for various analysis of UNC's applicant pool, correct?
- 6 A. Yes.
- $7 \parallel Q$ . And sometimes you would run analysis of that data in the
- 8 | form of studies about what that data shows?
- 9 A. That's fair to say, yes.
- 10 Q. For example, you helped with studies that the admissions
- 11 office did that attempted to control for various factors and
- 12 predict enrolling students' first-year grade point average?
- 13 A. Yes.
- 14 Q. You also did a study that attempted to control for various
- 15 | information in the data and look at the effect of taking
- 16 college-level classes when you're in high school?
- 17 A. That's true.
- 18 Q. You've also done studies attempting to control for other
- 19 | factors in the data that would be useful in predicting the
- 20 | reliability or usefulness of something you called grit factors?
- 21  $\parallel$  A. Yes, I was looking at the predictive validity of grit or
- 22 | noncognitive characteristics, yes.
- 23 Q. Grit was a measure of a student's consistency of interest
- 24 and perseverance of effort; is that right?
- 25 A. That was how it was defined by Duckworth who created -- who

- 1 defined the concept and created the measurement scale, yes.
- 2 | Q. You've also done studies with the data controlling for the
- 3 | various factors to determine the reliability of ratings that
- 4 | the staff assigns?
- 5 A. I did, yes.
- 6 Q. You've done studies controlling for the other factors in
- 7 the data to determine the effect of a second read versus a
- 8 | first read on an application?
- 9 A. I didn't personally conduct that study. The graduate
- 10 assistant who was working with me at the time did that for her
- 11 | master's thesis.
- 12 Q. Were you involved at all in that study?
- 13 A. In helping her access the data and understand the data.
- 14  $\parallel$  Q. And, in fact, with respect to that study, UNC actually made
- 15 some adjustments to its admissions process as a result of that
- 16 | analysis?
- 17 | A. I don't think only -- it wasn't entirely based on that
- 18 analysis. I think it helped inform that decision, but that
- 19 wasn't the only reason. That's my understanding.
- 20 Q. And so after that analysis, which may have factored into
- 21 | the decision, UNC went from reading every file twice to only
- 22 | reading certain portions of files twice; is that right?
- 23 A. That may be true, but it's my -- I remember that we -- we
- 24 switched from year to year over the years, so it might have
- 25 | been that we didn't read every file twice prior to that point

- 1 in time. So we've kind of gone back and forth several times 2 over the years.
- Q. At least with respect to that data, it was used to inform a decision to make alterations to the process?
- A. I couldn't speak to how much it was used. I mean, that information from that analysis was passed along to the leadership team, and I couldn't speak to how much they used

that or relied on that to make the decision.

- Q. In your time in the data office or in your time in the research role at UNC, you've never conducted any studies controlling for all other factors in the data to determine the effect that race was having on the likelihood of admissions at UNC; is that correct?
- A. Well, I wasn't -- I didn't conduct any studies looking at probability of admission. Most of mine were focused on predicting first-year GPA and whether the factors we took into account actually were related to student success. So I have not conducted a study that looked at probability of admission.
- And as a reader, knowing that we do a holistic review, an individual review without specific weights on any factor, I'm not sure I would have felt like that analysis informed how we read applications.
- 23 Q. My question is: You've never done that analysis, correct?
- 24 A. That's correct.

 $\parallel$  Q. And no one in the admissions office has ever asked you to

- $1 \mid do that analysis, correct?$
- 2 A. Not that I can remember.
- 3 Q. In fact, you never heard any discussions in the office
- 4 | about the possibility of doing that kind of analysis, other
- 5 | than perhaps with respect to this litigation?
- 6 A. I guess that would be a fair statement.
- $7 \parallel Q$ . Your office is also responsible for conducting the
- 8 statistical model using race, among other things, to predict
- 9 | yield?
- 10 A. We -- our yield model is based on a statistical analysis,
- 11 | but I'm not sure I would call the actual yield model
- 12 statistical. We don't run a regression every year to predict
- 13 | enrollment.
- 14 | Q. But you do use a model to try to predict the number of
- 15 students that will accept UNC's offers of admission?
- 16 A. We do.
- 17  $\parallel$  Q. Are you responsible for -- at least in the past have you
- 18 been responsible for administering that model?
- 19 A. Yes.
- 20 | Q. And you've used that yield model for 10 years or so; is
- 21 | that correct?
- 22 A. Yeah. It changes, but the factors that are in the yield
- 23 model have stayed consistent over the years.
- 24 Q. And do you have an understanding as to what the
- 25  $\parallel$  restrictions are on UNC's enrollment of out-of-state residents?

- A. Yes.
- 2 | Q. And it's true, in fact, that there's a financial penalty if
- 3 UNC enrolls greater than 18 percent out-of-state residents?
- 4 A. I think there's a financial penalty if we do that two years
- $5 \parallel \text{in a row, yes.}$
- $6 \parallel Q$ . And that means it's important for UNC to have an accurate
- 7 | yield model, correct?
- 8 A. Yeah, for many reasons I would say.
- 9  $\|$ Q. And at least as of 2017, the information that you used to
- 10 conduct your yield model included URM status?
- 11 A. It included residency, URM status, the deadline which an
- 12 applicant applied, and a test score range.
- 13 | Q. And just to make sure everybody understands, when you refer
- 14 | to the deadline, that means whether the applicant applied for
- 15 | early admission or the regular admission cycle?
- 16 A. Correct.
- 17  $\parallel$  Q. So is it sometimes referred to as D1 and D2?
- 18 A. That's how we refer to it sometimes.
- 19 Q. And when the yield model includes underrepresented
- 20 minorities, it includes that as a group, correct, not the
- 21 subethnicities that might be included?
- 22 A. Yes, it's a 0/1. It's a two-level factor.
- 23 Q. So for purposes of that model, at least, an applicant is
- 24 | just given a "1," for example, if they are African American,
- 25 | Hispanic or American Indian?

- L A. Yes.
- 2  $\|$ Q. You're familiar with what's known as a core report?
- 3 A. Yes.
- $4 \parallel Q$ . The admissions office used to run and distribute core
- 5 | reports; is that correct?
- 6 A. I don't know if I would agree with "distribute." It's my
- 7 | recollection that they, again, were retained on a secure site
- 8 that only certain people had access to.
- 9 Q. Let's talk a little bit about what a core report is.
- 10 | A. Okay.
- 11 | Q. A core report was a snapshot of where the admissions
- 12 decision process was at any particular point in time?
- 13 A. A snapshot of what particular data?
- 14 | Q. Data about the admissions process.
- 15 A. I mean, that's somewhat vague. I think it has a count of
- 16 | applications. So, yes, by demographics it helped us see where
- 17 | we were at any one point in time relative to years past.
- 18 Q. Including the number of applications received?
- 19 A. Correct.
- 20  $\parallel$  Q. As well as the number of students who had been tentatively
- 21 | admitted?
- $22 \parallel A$ . At one point in time I believe it did, as well as the
- 23 number who had been read by that date in time.
- 24 Q. And then there was also something known as a core report
- 25 comparison. Are you familiar with that document?

- 1 A. So the terminology is -- it's changed so much, so I'm
- 2 | not -- and we called it so many different things, so I don't
- 3 know if I could say for sure. If you could describe it, I
- 4 quess.
- $5 \parallel Q$ . Sure. Let me just ask generally, was there also a version
- 6 of the core report that would show the information you just
- 7 described but also compare it to a prior year's activity?
- 8 A. Yes, we did benchmark against prior years on a number of
- 9 different variables.
- 10 Q. Can we look at PX67? It's in your notebook. I think we're
- 11 going to pull it up on the screen here.
- 12 | (Pause in the proceedings.)
- 13 Q. All right. There's a cover e-mail here. You can see that;
- 14 | is that correct?
- 15 A. Yes.
- 16 Q. And this is an e-mail from you to Ashley Memory?
- 17 A. Correct.
- 18  $\mathbb{Q}$ . From April of 2015; is that right?
- 19 A. Yes.
- 20 Q. Who is Ms. Memory?
- 21 A. She was our communications director at the time.
- 22 | Q. Okay. And you're just noting that you're up more
- 23 out-of-state than in-state applications; is that right?
- 24 A. Yes.
- 25 Q. And that you're down 17 1/2 percent for AA, correct?

- A. Right.
- 2 Q. Does that refer to African Americans?
- 3 A. Yes.
- $4 \parallel Q$ . And so if we look at the attachment of this -- I understand
- 5 | that this was -- this was attached to an e-mail you sent to
- 6 Ms. Memory. But is this the basic format of the core report
- 7 | that we're looking at here? We've got the spreadsheet on the
- 8 screen, if that helps.
- 9 A. It's a little small. Yeah, I think -- it may have changed
- 10 | slightly over the years, but this is the basic format at that
- 11 point in time.
- 12 Q. And so in this one, it is a comparison report, correct?
- 13  $\|$  A. It does show year over year, yes.
- 14  $\|$  Q. 2015, which is the current year, is on the left side,
- 15 | correct?
- 16 | A. Yep.
- 17  $\parallel$  Q. And 2014, which is the prior year, is on the right side?
- 18 A. Correct.
- 19 Q. And then there's a series of columns that track the change,
- 20 correct?
- 21 A. Yes.
- 22 | Q. And so the core report here lists, among other things, some
- 23 | information about the testing of the applicant pool; is that
- 24 | right?
- 25 A. Yeah, the applicant and the admitted and the enrolling.

- 1 | Q. Right. And it also includes information about ethnicity,
- 2 | correct?
- 3 A. Yes.
- $4 \parallel Q$ . It also includes information about gender?
- 5 | A. Yes.
- 6 Q. And residency?
- 7 A. Correct.
- 8 Q. As well as citizenship?
- 9 A. Yes.
- 10 | Q. And legacy status, correct?
- 11 A. Correct.
- 12 Q. This report does not show anything about socioeconomic
- 13 status?
- 14 A. At this point in time it doesn't appear that it did, but I
- 15 | believe we include first-generation status and fee waiver on
- 16 | our application reports now.
- 17 | Q. And this document, at least at the time it was circulating,
- 18 didn't include information about disability?
- 19 A. I don't know that we easily track that information, so no.
- 20 | Q. It doesn't include any information about veteran status?
- 21 A. No.
- 22 | Q. It doesn't include any information about religion?
- 23 A. Again, we don't track that information, so it would be
- 24 difficult to report it.
- 25 Q. It doesn't include any information about political

- affiliation?
- 2 A. No.
- 3 Q. I want to look at another example. Let's go to PX58.
- The cover e-mail here, do you see that, Ms. Kretchmar?
- 5 | A. Yes.
- 6 Q. You're copied on this e-mail, correct?
- 7 A. Correct.
- $8 \parallel Q$ . Is this the graduate assistant you referred to,
- 9 Ms. Prasertpol --
- 10 A. Yes.
- 11 | Q. -- who used to work in your office and helped out with some
- 12 of the studies we've discussed?
- 13  $\|$  A. Right.
- 14 Q. This was an e-mail sent on December 2013, correct?
- 15 A. Yes.
- 16 Q. And went to UGA Associates, correct?
- 17 A. Which is the leadership team.
- 18  $\|Q$ . So who would be on that -- who would receive these reports?
- 19 A. At that point in time, I believe it would have been Steve
- 20 | Farmer, Barbara Polk, Michael Davis, Jared Rosenberg, I think.
- 21 I'm not sure who else. Maybe Yolanda Keith.
- $22 \parallel Q$ . All right. And if we look at the attachment to this
- 23 report, here we can see up in the upper left hand the document
- 24 is labeled "Core Report Year-on-Year Comparison," correct?
- 25 | A. Yes.

- 1  $\mathbb{Q}$ . This one is dated December 4th, 2013; is that right?
- 2 A. Right.
- $3 \parallel Q$ . And if you look just briefly down the left side of this
- 4 | report, it basically contains the same information as the
- 5 | report we were just looking at?
- 6 A. It looks that way.
- $7 \parallel Q$ . Okay. If you go down to the very bottom and look at the
- 8 | last spreadsheet here, there's a number of tabs. Do you see
- 9 that?
- 10 | A. Yes.
- 11 0. Those tabs have dates on them?
- 12 A. Correct.
- 13 Q. And so when this document was sent around, was it sent as a
- 14 | cumulative collection of prior reports?
- 15 A. I mean, it looks like she did. I don't remember if --
- 16 | again, it's not my recollection that we distributed these by
- 17 | e-mail often, and I'm not quite sure why she was. It's -- I
- 18 | remember that they mostly sat on the secured drive that certain
- 19 people had access to, but I'm not 100 percent sure.
- 20  $\parallel$  Q. In any event, if you look at the tabs, it indicates that
- 21 there were a number of reports generated between October 17th
- 22 and December 4th?
- 23 A. I see that, yes.
- 24 Q. And even when it sat on the secured drive, to the best of
- 25  $\parallel$  your memory, these were reports that were generated on a weekly

- l  $\parallel$ or biweekly basis; is that fair?
- 2 A. I think that's fair.
- 3 Q. Among the responsibilities that you had at the admissions
- $4 \parallel$  office was -- was to occasionally have responsibilities with
- 5 | respect to review of information about race-neutral
- 6 | alternatives?
- $7 \parallel A$ . I was a member of a working group that was charged with
- 8 exploring race-neutral alternatives, yes.
- 9  $\|$  Q. Before that, in 2009, were you asked to prepare a
- 10 | literature review regarding what other universities were doing
- 11 | regarding race-neutral alternatives?
- 12 | A. Yes, I was.
- 13 MR. STRAWBRIDGE: And if we can just bring up PX17
- 14 | quickly.
- 15 Q. (By Mr. Strawbridge) This is an e-mail dated January 10th,
- 16 | 2014; is that correct?
- 17 | A. Yes.
- 18 | Q. And you're referencing a literature review of the now dated
- 19 | race-neutral admissions research; is that correct?
- 20 A. It looks like I was passing it along to a colleague across
- 21 | campus and trying to note that I hadn't updated it fully since
- 22 | I first conducted the lit review -- literature review.
- 23 Q. And if you look up in the "Subject" line, it indicates it
- 24 was a literature review of race-neutral research up to 2009,
- 25 | correct?

- A. Yes.
- 2  $\parallel$  Q. So this was the 2009 task that we were just discussing; is
- 3 | that right?
- 4 A. Right.
- $5 \parallel Q$ . If you can just briefly look at the review, is that -- the
- $6 \parallel$  attachment there, is that the literature review that you did in
- 7 | 2009?
- 8 A. It looks like it, yes.
- 9 | Q. And it was your understanding that Steve Farmer requested
- 10 | this review?
- 11 A. Yes. I think I was reporting to Barbara Polk at that point
- 12 | in time. I believe that I understood the request came from
- 13 | him. It might have come through Barbara. And I know that when
- 14 I completed the lit review, I did pass it to Barbara and not to
- 15 | Steve, who I assumed shared it with Steve.
- 16  $\parallel$  Q. And when you were asked to prepare this document,
- 17 | Mr. Farmer did not tell you why he wanted it, correct?
- 18 | A. I don't think he gave a specific reason. But as someone
- 19 who works in admissions and was familiar with the Grutter case,
- 20 | I think I would have had some general sense of why he was
- 21 | asking, but I don't remember him specifically saying why.
- 22 | Q. In this literature review, you do not come to any
- 23 conclusions about whether race-neutral alternatives could work
- 24 | at UNC, do you?
- 25 A. I think I tried to summarize the conclusions that others

- 1 came to in the research; and I believe I did write that no
- 2 | viable race-neutral alternatives, in my opinion, in my review
- 3 of the literature had been found at that point in time.
- $4 \parallel Q$ . With respect to "would work at UNC," did you write that?
- $5 \parallel A$ . I'm sorry.
- 6  $\parallel$  Q. Did you write that with respect to UNC in particular?
- 7 || A. I -- I wrote that with respect to the research that I had
- 8 | reviewed in the literature review.
- 9  $\|$ Q. But you didn't do any specific analysis in this of what was
- 10 | being done at UNC?
- 11 A. I mean, I understood from reading Grutter that in the
- 12 | majority opinion they had instructed universities to pay
- 13 attention to natural experiments occurring in other states
- 14 where affirmative action had been banned and also other
- 15 research, and so this seemed like a reasonable first step
- 16 before doing anything specific to UNC.
- 17  $\mathbb{Q}$ . Do you know whether or not this document, in fact -- strike
- 18 | that.
- 19 You don't know whether this document was shared with anyone
- 20 | else at UNC in 2009, do you?
- 21 A. Anyone other than Barbara?
- 22 | Q. Correct.
- 23 A. I -- I firmly believe Steve saw it. I couldn't say with
- 24 | 100 percent, and I have -- I couldn't speak to who else they
- 25 might have shared it with. I don't know.

- 1  $\parallel$  Q. Now, you mentioned that you -- strike that.
- 2 You also assisted UNC with an analysis that was presented
- 3 | in an amicus belief filed with the Supreme Court in the Fisher
- 4 | litigation; is that correct?
- $5 \parallel A$ . I think I would reword that and say that an analysis that I
- 6 completed at Steve Farmer's request was later used. I didn't
- $7 \parallel$  know at the time that it would be used for that purpose.
- 8 | That's not why I conducted it.
- 9  $\|$  Q. You did it at his request, correct?
- 10 | A. Yes.
- 11 | Q. And you understand that it subsequently was part of what
- 12 was referred to in the amicus brief?
- 13 A. Yes.
- 14 | Q. And you're saying Mr. Farmer didn't tell you why he wanted
- 15 | that done?
- 16 A. I mean, again, it was like the lit review. I had a general
- 17 sense of why he might be asking me to do that kind of analysis,
- 18 | but...
- 19 Q. Before that model, you had not done any other modeling at
- 20 UNC with respect to race-neutral alternatives at UNC; is that
- 21 | correct?
- 22 A. I had not personally, no.
- 23 Q. And if we look at PX7, there's a couple of covering
- 24 e-mails on -- well, let me just say for the record, this is an
- 25 exchange that you had with Steve Farmer in July of 2013?

- A. Yes.
- $2 \parallel Q$ . And I think from the cover e-mails what you guys are
- 3 passing on there is the actual results of the work you did back
- 4 | during the time of the amicus brief in 2012, correct?
- 5 A. Right.
- $6 \parallel Q$ . And that analysis is sort of summed up in the portion of
- 7 the chain that's dated May 25th, 2012?
- 8 A. Correct.
- 9  $\|$  Q. And you had -- the process that you used to create this
- 10 analysis you haven't used for any other purpose in the
- 11 | admissions office, correct?
- 12 A. I mean, we -- we followed up with other percent plans, so I
- 13 don't -- I'm not sure if I would agree with that statement.
- 14  $\parallel$  Q. Did you use the particular formula or analysis that you
- 15 used here in those later efforts?
- 16 A. Not the same exact process, no.
- 17 | Q. Now, you mentioned the working group on race-neutral
- 18 | alternatives, correct?
- 19 A. Yes.
- 20 Q. That was a group that was formed in November of 2013; is
- 21 ∥ that right?
- 22 | A. Yes.
- 23 Q. And it met for the first time in December of 2013?
- 24 A. I believe that's correct.
- 25 Q. Is it fair to say that committee met four or five times

- $1 \mid$  over the course of the following two years?
- 2 A. I don't know that it was convened for two years. I
- 3 | couldn't say the exact number of times we met. I know that
- 4 | there was -- it took some time to get the data for a number of
- 5 | reasons, and we didn't meet while we were waiting to get the
- 6 data.
- 7  $\|Q$ . The report that you ultimately drafted for the working
- 8 group included the literature review?
- 9 A. Part of the literature review, yes.
- 10 Q. And is it fair to say that the final report that the
- 11 working group produced didn't have very many changes from the
- 12 2010 lit review you did?
- 13 A. I think I added three or four more recent references to
- 14 more recent research.
- 15 Q. Would you agree that you didn't add a whole lot?
- 16 A. I would agree that I didn't conduct another full lit review
- 17 | at that point in time.
- 18 Q. And do you remember that one of the reasons why you didn't
- 19 add a whole lot is that you had time constraints and other job
- 20 responsibilities for prioritizing?
- 21 A. Yeah, I would agree with that. I had other job
- 22 | responsibilities, and our work as a group was paused fairly
- 23 quickly after we completed that report, which made it a little
- 24 more difficult to incorporate changes.
- 25 Q. I direct your attention to Defendants' Exhibit 42. That's

- a DX number in the binder there.
- 2 MR. STRAWBRIDGE: Mr. Weir, would you put it up on the
- 3 | screen?
- 4 | (Pause in the proceedings.)
- $5 \parallel Q$ . (By Mr. Strawbridge) There we go. This is an agenda from
- 6 January 15th, 2014; is that right?
- 7 A. So am I looking at DX42? It doesn't --
- 8 | Q. It's 41. I apologize.
- 9 A. Okay. Yes, it looks like an agenda from January 15th.
- 10 Q. I'm sorry. One second.
- 11 | (Pause in the proceedings.)
- 12 Q. I'm sorry for the confusion on our side. We're going to go
- 13 back to the DX42.
- 14 So this is an agenda from February 26th, 2014, correct?
- 15 A. It's hard to tell if it's an agenda or minutes. I'm not
- 16 quite sure. It doesn't say. It just has the date.
- 17  $\parallel$  Q. Fair enough. But does this reference a meeting of the
- 18 working group on race-neutral alternatives?
- 19 A. Yeah. I would say it's minutes because it says who was in
- 20 | attendance, so it must have been drafted after the meeting.
- 21 Q. That makes sense, and I appreciate that.
- 22 You were in attendance at this meeting, correct?
- 23 A. Apparently, yes.
- 24 Q. And the other members you recognize as members on that
- 25 ∥working group?

- A. Correct.
- $2 \parallel Q$ . And one of the questions that came up at this meeting,
- 3 | according to the minutes at least, if you go down to the
- 4 | "Questions to consider before we start" -- do you see that?
- 5 A. Yes.
- $6 \parallel Q$ . -- "How do we want to define a 'serious, good-faith
- 7 consideration of workable race-neutral alternatives?'" Is that
- 8 | correct?
- 9 A. I see that written there, yes.
- 10 Q. You don't actually recollect the specifics of this
- 11 | discussion, do you?
- 12 A. I don't.
- 13 Q. I want to look at PX29. This is a cover e-mail. The top
- 14 e-mail, for the record, is from April 29th, 2015. It was sent
- 15 | from Ms. Polk; is that correct?
- 16 A. Yeah, I guess so. It doesn't say who it was sent to, but,
- 17 | yes, I see that it was sent by Barbara on April 29th, 2015.
- 18 Q. And she's forwarding an e-mail that you had sent her on
- 19 | Halloween of 2014?
- 20 A. I guess so, yeah.
- 21  $\parallel$  Q. And in that you -- the subject line of that e-mail was
- 22 | "Race-Neutral Draft," correct?
- 23 A. Correct.
- 24 | Q. And you say: "I think I've been hitting my head up against
- 25  $\parallel$  the wall with this long enough. Not sure if that's the right

- 1 expression, but it's time to let this go for now. I know most
- 2  $\parallel$  of this won't likely make the cut for the final draft, but I
- 3 | felt like I needed to at least make an attempt. So, I hope
- 4 | it's a start, at least."
- 5 Is that accurate?
- 6 A. I did write that, yes.
- $7 \parallel Q$ . But, in fact, this ended up being the final draft report
- 8  $\parallel$  for the working group, correct?
- 9 A. I -- I don't know. I know that changes were made over
- 10 | time, and I had sent several drafts to Barbara. I couldn't say
- 11 with assurance how many changes were made from this point to
- 12 the final.
- 13  $\|Q$ . Do you have in front of you in the binder PX3?
- 14 | A. Yes.
- 15 Q. Okay. Does that indicate that these are the Defendants'
- 16 | responses and objections to the Plaintiff's second
- 17 | interrogatories?
- 18 A. Yes.
- 19 Q. Do you know whether you assisted in the preparation of the
- 20 responses to these interrogatories?
- 21 | A. If I did, I didn't know it was for interrogarory [sic] --
- 22 | however you say that word.
- 23 Q. Interrogatories.
- 24 | A. But --
- 25 Q. All right. I'm going to direct you to the response that

- 1 UNC submitted in this case to Interrogatory No. 17. Let's
- 2 | start with what the interrogatory itself says. Does the
- 3 | interrogatory ask UNC to identify any changes that were made
- 4 between Jennifer Kretchmar's draft report for the working
- 5 committee on race-neutral alternatives from October 31, 2014,
- 6 and the final report?
- 7 A. Yes, I see that.
- 8 | Q. And it's referring to the document we were looking at
- 9 before, the October 31st draft, correct?
- 10 | A. Yes.
- 11  $\parallel$  Q. And it asks for some information about any changes that
- 12 were made, and then it says: "Do not identify immaterial
- 13 changes, such as fixing typos or removing the word 'draft.'"
- 14 Do you see that?
- 15 A. I see that, yes.
- 16 Q. And the response that UNC submitted in this case is that
- 17 | "...Defendants state that any changes made to Jennifer
- 18 Kretchmar's draft report for the Working Group on Race-Neutral
- 19 | Alternatives after October 31st, 2014, were 'immaterial' as
- 20 defined by Plaintiff in Interrogatory No. 17."
- 21 Do you see that response?
- 22 A. I do see that response.
- 23 Q. You know a person named Howie Kallem, correct?
- 24 A. I don't know him personally. I've become more familiar
- 25 with his name in preparing for trial.

- 1 Q. You're aware that Mr. Kallem was a former employee of the
- 2 | Department of Education's Office for Civil Rights?
- 3 A. I think I knew that, yes.
- $4 \parallel Q$ . And that at some point he was employed by UNC --
- 5 A. Right.
- 6 Q. -- after he left the Department of Education?
- 7 A. Right.
- 8 | Q. And Mr. Kallem, in fact, provided some comments on your
- 9 draft report, correct?
- 10 A. I believe he provided those to Barbara Polk, yes.
- 11 Q. And those were provided to you as well, correct?
- 12 A. I've seen an e-mail indicating that they were, yes.
- 13 Q. Let's just briefly look at PX32. Do you see that e-mail?
- 14 | A. I do.
- 15 Q. Is this from November of 2014?
- 16 A. Correct.
- 17 Q. It's from Ms. Polk to you and Mr. Farmer?
- 18 A. Right.
- 19 Q. And she's indicating that she received a response from
- 20 Howie regarding this draft statement, correct?
- 21 A. Yes.
- 22  $\parallel$  Q. And this is a couple weeks after October 31st, 2014?
- 23 A. Yes. And maybe in between this time you had filed the
- 24 | lawsuit; is that correct?
- 25 Q. November 18 -- you're testing my memory. We have that on

- 1  $\parallel$  the record. We can figure it out.
- 2 | A. Okay.
- $3 \parallel Q$ . But, in any event, in this e-mail she's indicating that
- $4 \parallel \text{Mr. Kallem had provided comments, and she had placed them on$
- 5 | the H drive; is that right?
- 6 A. Yeah.
- 7 | Q. And she's also included comments from his e-mail with the
- 8 draft document on that file, correct?
- 9 A. Correct.
- 10 Q. And if we look at PX30 -- just let me know when you're
- 11 | there.
- 12 A. Yes.
- 13 | Q. This is an actual e-mail from Mr. Kallem to Ms. Polk,
- 14 | correct?
- 15 A. Right.
- 16  $\parallel$  Q. It is dated November 18th, 2014?
- 17 A. Right.
- 18 Q. And Mr. Kallem -- this is the e-mail providing some
- 19 comments on the race-neutral alternatives analysis, right?
- 20 A. Yes.
- 21 | Q. And if you look among the comments that Mr. Kallem had, one
- 22 of them was that your draft did not include more recent
- 23 research on race-neutral alternatives, correct?
- 24 A. I see that, yes.
- 25 | Q. And he actually provides some suggestions as to where you

- 1 | might find more information, correct?
- 2 A. Yes.
- 3 | Q. No changes were actually made to the final draft in
- 4 | response to these comments, though, were they?
- 5 A. Right. And I think that's why I asked about the date the
- 6 | lawsuit was filed, because it was my understanding there was a
- 7 pause at that moment in time in our work and -- because we were
- 8 at a natural stopping point and the new race-neutral committee
- 9 was formed, I think that's part of the reason we didn't go
- 10 | back, because one of the first activities that the new
- 11 | race-neutral committee undertook was a lit review done by the
- 12 professor from the law school.
- 13 | Q. And we'll get to the chronology of when this report was
- 14 adopted and when the new committee started.
- 15 A. Okay.
- 16 Q. I just want to make sure I understand.
- 17 You never actually added these comments to the draft you
- 18 | had prepared in Halloween 2014?
- 19 A. I don't think I incorporated this feedback.
- 20 Q. Yeah. But by adding these comments, what I'm asking is you
- 21 | didn't make adjustments to the draft in response to these
- 22 | comments?
- 23 A. I don't believe so.
- 24 | Q. Now, as you mentioned, this report was ultimately submitted
- 25  $\parallel$  to the Advisory Committee on Undergraduate Admissions a couple

- $1 \mid \mid$  of years later?
- 2 A. I don't know the exact timeline. I think it was about a
- 3 | year later.
- 4 | Q. February 2016?
- 5 | A. Okay.
- 6 Q. Does that sound right?
- $7 \parallel A$ . Yes. And we submitted this in November 2014, so yeah.
- 8 Q. Fair enough. Between one and two years?
- 9 A. Yeah.
- 10 Q. PX38, can I just address your attention to that?
- 11 | A. Okay.
- 12 Q. Do these appear to be meeting minutes from the Advisory
- 13 Committee of Undergraduate Admissions in February of 2016?
- 14 | A. They do.
- 15 Q. You were among the people present at this meeting?
- 16 A. It looks like I was a guest, yes.
- 17 | Q. It indicates that you presented findings from your work
- 18 exploring race-neutral alternatives at this meeting; is that
- 19 | correct?
- 20 A. Yeah. I remember that Barbara was the primary presenter,
- 21 | but I think I helped explain some of the results and the work
- 22 of the group.
- 23  $\|$ Q. And it was at this meeting, essentially, that the committee
- 24 | accepted the draft report that we saw from 2014?
- 25  $\|$  A. I believe so.

- 1 || Q. And it was also at this point in time that UNC formed a new
- 2 committee to study race-neutral alternatives?
- $3 \parallel A$ . I believe that's what the minutes say, yes.
- 4 | Q. That's a group that's sometimes referred to as the
- 5 | Committee on Race-Neutral Strategies?
- 6 A. I think so, yes.
- 7  $\mathbb{Q}$ . You provide staff support for that committee?
- 8 | A. Yes.
- 9 Q. Just to say, you're not part of the decision-making body;
- 10 | is that right?
- 11 A. That's correct.
- 12 Q. But if they need data from the admissions office, you help
- 13 | obtain that data?
- 14 A. Right.
- 15 | Q. You've given access to applicant data to the members of
- 16 | that committee?
- 17 A. I have.
- 18 Q. And that includes data regarding UNC's applicant pool,
- 19 | correct?
- 20 A. Correct.
- 21 MR. STRAWBRIDGE: Your Honor, I only have about a
- 22 | couple more -- two or three more minutes of questioning.
- 23 THE COURT: All right. That's fine.
- 24 MR. STRAWBRIDGE: I just wanted to give you an idea
- 25 since we are approaching 12:30.

- THE COURT: I appreciate it.
- 2 | Q. (By Mr. Strawbridge) We looked earlier at the reading
- 3 document, and it references to the term "critical mass,"
- 4 | correct?
- 5 A. Correct.
- 6 Q. You remember looking at PX108 and how it referred to that
- 7 document -- or referred to that term -- I'm sorry -- "critical"
- 8 mass"?
- 9 A. Yes.
- 10 Q. At one point critical mass came up in the work of the
- 11 | Working Group on Race-Neutral Alternatives; is that right?
- 12 A. I know that from looking at agendas. I don't remember the
- 13 specifics of the conversation, but I have no reason to believe
- 14 | that that conversation didn't take place.
- 15 Q. Let's look at DX40.
- 16 A. I don't think I have PX40.
- 17 Q. It's DX40.
- 18 A. DX40. Okay.
- 19 Q. Do you see that document?
- 20 A. Yes.
- 21  $\|$  Q. This is an agenda from the December 19th, 2013, meeting of
- 22 | the working group?
- 23 A. Yes.
- 24 Q. And one of the questions on here is: "How will we know
- 25 when we've reached 'critical mass'?" Correct?

- A. Correct.
- 2  $\parallel$  Q. You don't have any recollection of actually discussing that
- 3 question at the meeting, do you?
- 4 A. I don't have a recollection of the specifics of the
- 5 conversation, no.
- 6 | Q. You don't remember having -- you don't recollect having the
- 7 discussion at all, correct?
- 8 A. Not at that meeting.
- 9 Q. You've worked in the admissions office for 17 years now?
- 10 A. Eighteen.
- 11 Q. Eighteen. And during your first 15 years in the office,
- 12 the admissions office had not had any discussions with its
- 13 employees about using race to achieve critical mass, had they?
- 14  $\parallel$  A. I would agree that critical mass isn't language that we use
- 15 | in our everyday work, but to the extent that critical mass is
- 16 aiming toward certain ends, achieving educational benefits of
- 17 diversity, those are things that we talk about frequently. So
- 18 I think our readers and our staff understand what we're aiming
- 19 for when we say we're trying to build a class of students who
- 20 bring diverse backgrounds and perspectives. So even if we
- 21 | haven't used that terminology, I think it's part of the
- 22 | understanding of what we do in our work and what we're trying
- 23 to achieve.
- 24 Q. Ms. Kretchmar, you've never actually discussed what
- 25 critical mass would be in the admissions office, correct?

- 1 A. I'm not sure I understand your question. Like define it,
- 2 | specifically write down a definition? I'm not sure beyond what
- 3 | I just answered. We've had discussions about what we're trying
- 4 to achieve by achieving critical mass.
- $5 \parallel Q$ . You, during your time in the admissions office, have not
- 6 | had a discussion specifically about how you use race to achieve
- 7 | critical mass and that term?
- 8 A. I guess that would be fair to say.
- 9 | Q. And you don't recall having that conversation during your
- 10 | time on the Working Group on Race-Neutral Alternatives, right?
- 11 A. I think -- based on the agenda I just saw, I think we must
- 12 have had some discussion about how we would know when we
- 13 achieved critical mass.
- 14 Q. Do you recall any conversation?
- 15 A. I couldn't say at that specific meeting, but I know I've
- 16 | been a part of other conversations where that kind of topic
- 17 arose.
- 18 Q. During your time on the race-neutral alternatives
- 19 committee, do you recall having any discussion as to what would
- 20 constitute a critical mass at UNC?
- 21 A. Again -- I mean, other than how I've answered the question
- 22 | already, I don't know.
- 23 Q. And you don't recall any specific discussion as to how the
- 24 university defines that term, do you?
- 25 A. I mean, other than what I just explained. I mean, I think

- 1 we define it in terms of the ends that we're trying to achieve.
- 2 We aren't aiming for a specific number or a quota, but we are
- 3 | trying to create an environment on campus. I could go through
- 4 | what I understand to be the educational benefits of diversity.
- 5 So I think we think of critical mass in terms of its
- 6 | outcomes, and I think one of the ways that we try to determine
- 7 | if we've achieved it is by asking our students whether we've
- 8 created the environment for them that they say they want in
- 9 terms of studying and living alongside people who are different
- 10 from them.
- 11 | Q. You remember giving a deposition in this case, right,
- 12 Ms. Kretchmar?
- 13 A. Yes.
- 14  $\parallel$  Q. You gave that deposition. You took an oath to tell the
- 15 | truth?
- 16 | A. Yes.
- 17 | Q. Reviewed your deposition?
- 18 A. Yes.
- 19 Q. And you actually signed an errata sheet noting any errors
- 20 | in your deposition?
- 21 A. Yes.
- 22  $\parallel$  Q. I have a copy of your deposition there. I'm going to ask
- 23 you to refer to page 168 of your deposition transcript. We'll
- 24 show it on the screen, but you can look at it in the --
- 25 A. I'm sorry. What's the exhibit number?

- 1  $\|$  Q. It's a separate bound volume sitting next to you.
- 2 A. Oh. What page? I'm sorry.
- 3 Q. 168.
- 4 | A. Okay.
- 5 Q. Line 10. "Question: In all your work on the race-neutral
- 6 | alternatives committee, you don't recall having discussion
- 7 | about what would constitute critical mass?
- 8 "Answer: Do you mean how other people define critical mass 9 or what --
- 10 | "Question: To how the university defines critical mass.
- 11 | "Answer: I don't. I don't recall that conversation."
- 12 | A. Right. And I --
- 13 Q. Were you asked those questions, and did you give those
- 14 | answers at your deposition?
- 15 A. I did. And I would say, in preparing for this trial I was
- 16 shown the agenda that said we discussed critical mass; and I
- 17 | have no reason to believe we didn't, even though I don't recall
- 18 | the specifics of the conversation. So I think that's
- 19 consistent with what I said then.
- 20 Q. Do you remember whether you were shown that agenda at your
- 21 | deposition?
- 22 | A. I don't believe I was. I don't recall though. I don't
- 23 | remember. Can you tell me?
- 24 Q. Can you turn to page 169? I'm sorry. Strike that.
- 25 What about your time on the committee for race-neutral

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strategies? At least as of March 2017, you didn't recall any
    recollection there as to how the university defines critical
 2
 3
   mass, did you?
 4
   A. I don't remember specific conversations, no.
 5
             MR. STRAWBRIDGE: I don't have any further questions
 6
   for Ms. Kretchmar.
7
             THE COURT: All right. Thank you.
8
        It makes sense for us to take our lunch break, and then we
 9
   will resume after this. All right. Let us recess until 1:35.
10
        (A noon recess was taken from 12:33 p.m. until 1:35 p.m.;
    all parties present.)
11
12
             THE COURT: All right. She is your witness.
13
            MS. VAN GELDER: Thank you, Your Honor. Amy Van
    Gelder for the UNC Defendants. I don't have any questions for
14
15
   Dr. Kretchmar.
        I just want to thank you for your time.
16
17
             THE COURT: All right. Thank you.
18
       Any questions from Student-Intervenors?
19
            MR HINOJOSA: No, Your Honor.
20
             THE COURT: All right. Anything further for this
21
   witness?
22
            MR. STRAWBRIDGE: I guess not, Your Honor.
23
             THE COURT: All right. You may step down. Thank you.
24
        (The witness left the stand.)
25
             THE COURT: If you would call your next witness,
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please. 2 MR. MCCARTHY: Your Honor, I think the witness is 3 coming in in just a minute. 4 THE COURT: All right. 5 MR. MCCARTHY: Before we get started, I'm going to try 6 this standing up. I've got a bit of a bad back, so I may 7 change at some point and sit down. I hope that's not a problem 8 for anybody --9 THE COURT: Not at all. MR. MCCARTHY: -- if I'm not doing too much dancing up 10 11 here, but I'm going to try to do this without getting my back 12 tightened up. 1.3 THE COURT: All right. That's not at all a problem for me, so do what you need to do. 14 15 MR. MCCARTHY: Thank you. (Pause in the proceedings.) 16 17 MR. MCCARTHY: The Plaintiff calls Peter Arcidiacono. 18 Is this the witness where there was some THE COURT: 19 indication of -- let me see. What was I thinking? All right. 20 This says objection, Federal Rule 802. This is on the joint 21 agreement. 2.2 MR. FITZGERALD: Your Honor, I believe there's an 23 objection to the admission of his reports, and so the parties 24 have each objected to admitting the other's expert reports at this point in time.

1 THE COURT: Oh, I see. All right. I understand. MR. MCCARTHY: 2 That's all it is. 3 THE COURT: That's all it is. All right. Thank you. 4 MR. FITZGERALD: And, Judge, perhaps I should just 5 note there might be -- there could be objections if some of the 6 testimony veers outside of the expertise. I'm not waiving 7 that. That was just directed at reports. Thank you. 8 THE COURT: Thank you for the clarification. 9 Yes, sir. 10 MR. MCCARTHY: Thank you, Your Honor. 11 PETER ARCIDIACONO, PLAINTIFF'S WITNESS, SWORN 12 DIRECT EXAMINATION BY MR. MCCARTHY: 13 Could you please introduce yourself for the Court? 14 15 Α. My name is Peter Arcidiacono. And for the record, can you spell your last name? 16 Q. 17 A-r-c-i-d-i-a-c-o-n-o. 18 Q. Thank you, Professor Arcidiacono. 19 Where do you work? 20 I'm a professor of economics at Duke University. 21 And were you hired to provide testimony in this case? Q. 22 I was. Α. What issues are you addressing with your testimony today? 23 I'll be looking at how formulaic UNC's admissions decisions 24 are and the role that race plays in those admissions decisions.

- 1  $\|$  Q. Did you reach any conclusions along those lines?
- 2 A. Yes. I'm able to predict UNC's admissions decisions
- 3 | incredibly well, suggesting it's guided by an implicit formula.
- 4 | This is especially true in state in that race plays a
- 5 | tremendous role in the admissions process. This is especially
- 6 true for out-of-state applications.
- $7 \parallel Q$ . We'll come back to that. First, I'd like to ask you a
- 8 | little bit about your background, okay?
- 9 A. Great.
- 10 Q. What is your current position at Duke?
- 11 A. I'm a full professor of economics.
- 12  $\|Q$ . And is that a tenured position?
- 13 | A. It is.
- 14 | Q. And when did you start at Duke?
- 15 A. In 1999.
- 16  $\parallel$  Q. And how long after that were you awarded tenure?
- 17 A. I believe it was 2006, somewhere around there.
- 18 Q. And when did you become a full professor?
- 19 A. 2010.
- 20  $\parallel$  Q. Before you started at Duke, what were you doing?
- 21 A. I was a Ph.D. student in economics at University of
- 22 | Wisconsin-Madison.
- 23  $\|Q$ . And did you earn that Ph.D. there?
- 24 | A. I did.
- 25  $\parallel$  Q. And where were you before that?

- 1 A. Before that I worked for one year for an economic
- 2 consulting firm named ECON Northwest. Then I did my
- 3 undergraduate degree at Willamette University, and that's --
- 4 both these things are in Oregon.
- 5 | Q. And what degree did you earn at Willamette?
- 6 A. Bachelor of science in economics.
- $7 \parallel Q$ . Now that you're at Duke, what is the focus of your
- 8 | research?
- 9 A. Broadly under labor economics and applied microeconomics,
- 10 but a lot of my work within that focuses on the economics of
- 11 | higher education.
- 12 Q. And what areas within higher education?
- 13 A. So I do a lot of work on how people choose their college
- 14 | major. I've done work about how physicians decide what
- 15 specialty to go into. I've looked at peer effects in the
- 16 | classroom. I've looked at how -- what determines cross-racial
- 17 | friendships, and I've done a lot of work on affirmative action
- 18 | in higher education.
- 19 Q. And in doing this work, do you specialize in using any
- 20 particular methods in your research?
- 21 | A. Well, I'm always estimating empirical models. Virtually
- 22 | all of my work is using empirical models.
- 23 Q. How -- and when you say "empirical models," do you mean the
- 24 same or something different than econometric modeling?
- 25 A. Pretty much the same. With econometric modeling -- I

- 1 suppose for an econometrics-type paper, you could just be
- 2 developing sort of an estimator. When we're doing empirical
- 3 work, you're actually using the estimator somehow on real data.
- $4 \parallel Q$ . Are these kinds of modeling regularly employed in your
- 5 | field?
- 6 A. All the time.
- $7 \parallel Q$ . Have you heard and read testimony from UNC in this case
- 8 describing its admissions system as holistic?
- $9 \parallel A$ . I have.
- 10 Q. Does that make it incapable of being modeled?
- 11 A. Not at all. You know, I've modeled the decision of
- 12 | teenagers to have sex. That is quite -- there's plenty of
- 13 subjectiveness for those decisions.
- 14 Q. And is it common in your field that decisions that have
- 15 some subjective component to them are modeled?
- 16 A. Yes, it's quite common.
- 17 | Q. Have you modeled admissions decisions before outside of an
- 18 | academic setting?
- 19 A. Outside of an academic setting?
- 20 Q. Yes.
- 21 A. Well, yes, from the Harvard case.
- 22 | Q. And have you published academic papers in which you've
- 23 | modeled admissions processes?
- 24 | A. I have.
- 25 Q. Do you also teach?

- A. I do.
- 2 Q. What courses do you teach?
- 3 A. So at the graduate level, it's primarily two courses. The
- 4 | first is on dynamic discrete choice, and the second is on sort
- 5 of beliefs in learning in economics.
- 6 Q. What does dynamic discrete choice involve?
- 7 A. Well, the discrete choice part refers to the cases where
- 8 you're trying to model decisions that are not continuous. So
- 9 | binary would be one example, like whether or not you're
- 10 admitted. The dynamic part refers to the fact that when you're
- 11 | making those decisions, you're forming expectations about the
- 12 | future so that -- you know, you think about going to law
- 13 school. That might be a painful experience, but you do that
- 14 with the expectation that there's going to be a payoff later.
- 15 Q. Do you teach undergrad courses as well?
- 16 | A. I do.
- 17 Q. What courses?
- 18 | A. Primarily intermediate microeconomics with calculus.
- 19 Q. Have you published in your various areas of study?
- 20 A. I have.
- 21 | Q. About how many publications would you say you have?
- 22 A. I think it's around 40.
- 23 Q. And did those involve econometric modeling?
- 24 A. Almost all of them did, yes.
- 25 Q. Do any of those publications relate to the area of

- affirmative action?
- $2 \parallel A$ . Yes, I think it's around nine relate to affirmative action.
- 3 | Q. Including econometric modeling related to affirmative
- 4 | action?
- 5 A. Virtually all of them have econometric modeling aspects
- 6 related to affirmative action, yes.
- 7  $\mathbb{Q}$ . Have you received any recognition for this work?
- 8 | A. I have. So I've been -- I've authored two survey pieces
- 9 that were invited. One came out in the Journal of Economic
- 10 | Literature. This is all about affirmative action. It's called
- 11 | "Affirmative Action and the Quality-Fit Trade-Off." Journal of
- 12 | Economic Literature is sort of the premier place where work of
- 13 | this sort would appear. And then in 2015, I also wrote a paper
- 14 | for the Annual Review of Economics which was on affirmative
- 15 action in undergraduate education.
- 16  $\parallel$  Q. And I think you said, but I just want to be sure, that you
- 17 were invited to write those publications?
- 18 A. In both cases, yes.
- 19 Q. Are you an opponent of affirmative action?
- 20 A. I would not say I'm an opponent of affirmative action. I
- 21 would say that I'm sometimes a critic of parts of affirmative
- 22 | action, and a lot of my work is about bringing some nuance to
- 23 the affirmative action debate. I think we often sort of view
- 24 | affirmative action in very binary terms.
- 25  $\mathbb{Q}$ . Can you give me an example?

A. So I believe the paper came out in 2012. There's a paper called "What happens after enrollment?" And in that paper, we're looking at choice of major and grades.

And so what you see in the data — this is at Duke — is that African American and white students come in wanting to major in STEM subjects. That's science, technology, engineering, and mathematics. They come in wanting to major in those areas at the same rate as white students, but the persistence is very different. And so what this paper was about was trying to understand why the persistence rates were different.

So at Duke during this time period, white males who started out in STEM, about 8 percent switched out of those majors, but over half of African American males switched out. And what my analysis revealed is that that was basically due to differences in academic qualifications coming in. The way that that works is that if you're coming in with lower SAT math scores than your peers — maybe you haven't had AP calculus and so on — that really matters a lot more in the sciences than in other fields. So these students still graduated from Duke; they just didn't graduate in STEM fields. And that's sort of the nuance I'm talking about, that there are trade-offs.

You could say that these results had nothing to do with race, per se. This had to do with differences in academic background. As an example, some legacy students -- like,

- legacies come in. Coming in behind relative to their peers, they're going to also not persist in the science fields. And the reason all this relates to affirmative action is because of what that does in terms of the skills students are coming in with.
- Q. Are you familiar with something that has been referred to as the mismatch theory?
- 8 | A. I am.

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- 9 Q. And what do you understand that to mean?
- 10 A. Well, people have many different definitions of that.
  - MR. FITZGERALD: Your Honor, I'm going to object to relevance. We had an understanding that this witness would not be opining on mismatch in the deposition.

THE COURT: Let me hear from you, sir.

MR. MCCARTHY: Your Honor, we don't intend to have Professor Arcidiacono draw any conclusions about this at all. This is just a little bit of his background and, in fact, we don't -- as I said, we don't intend to have him draw any conclusions about this issue at all. We just want to clear up something about -- so his background is properly understood because, for example, Intervenors suggested there was going to be something about mismatch and basically mischaracterized what I think some people think of as mismatch, and we would just like to get out Professor Arcidiacono's position and background on the issue, that's all. No conclusions.

| 1  | THE COURT: So are you offering evidence on this               |
|----|---|
| 2  | theory?   |
| 3  | MR. MCCARTHY: No.   |
| 4  | THE COURT: I'm asking you.                                    |
| 5  | MR. FITZGERALD: No, Your Honor, but we asked at the           |
| 6  | deposition the witness I'll read the deposition transcript    |
| 7  | from page 26: "And I take it you're not planning to offer any |
| 8  | opinion about whether race-conscious admissions policies at   |
| 9  | Carolina resulted in what is known as mismatch?               |
| 10 | "Answer: Well, that was not part of this report."             |
| 11 | So we understood this expert was not going to be discussing   |
| 12 | mismatch at this trial. So our objection is just to the scope |
| 13 | of his testimony.   |
| 14 | THE COURT: So if he is just going to describe what            |
| 15 | the theory is, you're not objecting to that?                  |
| 16 | MR. FITZGERALD: As long as we don't go too far, Your          |
| 17 | Honor, and don't apply it to this case.                       |
| 18 | THE COURT: All right.   |
| 19 | MR. MCCARTHY: We have no intention to apply it to             |
| 20 | this case.  |
| 21 | THE COURT: All right. You may proceed.                        |
| 22 | MR. MCCARTHY: Thank you, Your Honor.                          |
| 23 | Q. (By Mr. McCarthy) So, Professor Arcidiacono, do you have   |
| 24 | an understanding of what people mean when they refer to       |
| 25 | mismatch?   |

A. I think it can mean different things. So some people would characterize the results I just described as mismatch in the sense that they were coming in with not as strong math backgrounds. That's a result both of affirmative action policies and the legacy discrimination in the country, and that's leading them to places where the STEM majors are not as good of a fit. So some people would call that mismatch.

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- That's not really where I stand on mismatch. When I think about mismatch, I'm thinking about would they rather -- if they had the right information, would they have made a different decision. So it may be the case that somebody, if they knew -- "Look, I'm going to Duke, and I know I'm not going to end up majoring in one of the STEM fields. That's okay. I just -- I want to go to Duke. That's fine."
- The issue comes in when students don't have the information, and that -- in my mind, my work has been more saying that the conditions under which mismatch -- from that perspective are very strict as to what -- where mismatch could actually show up.
- 20 Q. Let's move back to your qualifications. Do you have any 21 editorial positions?
- A. I am an associate editor at the *Journal of Applied*Econometrics, and I've served as coeditor or associate editor

  for maybe five more journals.
  - $5 \parallel Q$ . Have you had any other appointments or honors?

- 1 A. So, I'm a research associate, I believe, at the National
- 2 | Bureau of Economic Research, which is called the NBER.
- 3 Q. Who leads that education group?
- 4 A. So I'm in the education group, and Professor Carolyn Hoxby
- 5 | leads that group.
- 6  $\parallel$  Q. Have you had any other appointments or honors?
- 7 A. Yes. I think it was in 2018, I was elected a Fellow of the
- 8 | Econometric Society, and in 2020, I was elected a Fellow of the
- 9 | International Association of Applied Econometricians.
- 10 (Court reporter requests clarification.)
- 11 THE WITNESS: Applied Econometrics. Is that right?
- 12 Yeah.
- 13 Q. (By Mr. McCarthy) All right. Let's move from your
- 14 | background to your work in this case.
- 15 How does your work here compare to the work that you've
- 16 previously done in connection with your academic research?
- 17  $\parallel$  A. Well, a lot of the modeling is very similar. It's just the
- 18 data is much better.
- 19 Q. And when you say "the data is much better," what do you
- 20 mean?
- 21 | A. Well, we have data on multiple admission cycles. So we
- 22 | have six admission cycles on the full set of applicants, and
- 23 you have data that you typically do not see in most of the work
- 24 | that I've done. Things like UNC's ratings are something that
- 25 are not publicly available.

- Q. So that's data that's not normally available to economists and researchers that do this type of work?
- 3 A. That's correct.
- 4 Q. Does the quality of the data have any effect on your work?
- $5 \parallel A$ . Oh, it does. It means you would be much more confident in
- 6 the models that you're estimating.
- $7 \parallel Q$ . Are you being paid for your work on this case?
- 8 | A. I am.
- 9  $\mathbb{Q}$ . How much?
- 10 A. So my -- the hourly rate here is \$450; and then for days
- 11 | I'm testifying in trial, trial days, it's 5,000 a day; and on
- 12 | travel days, it's a thousand dollars.
- 13 Q. What were you asked to do for your testimony today?
- 14 | A. Talk about the two things I mentioned earlier, which was
- 15 how formulaic are UNC's admissions decisions and the role that
- 16 | race plays in those admissions decisions.
- 17  $\parallel$  Q. How did you go about answering those questions?
- 18 A. So I see it as a four-part process. In the first part,
- 19 you're creating the data set; and that's sort of figuring out,
- 20 well, what is the relevant set of applications that we should
- 21 be looking at.
- 22 And the second part, it's more a descriptive analysis.
- 23 | There we're just seeing what basic patterns are in the data.
- 24 And the third part is where you're building and estimating
- 25 your model of the admissions decisions. So we've seen what the

- basic patterns are in the data. Then we're going to form a model of the admissions decisions, and we're going to estimate that model.
- And then, given the essence of the model, we get to the fourth part, which is, you know, seeing what would happen if we changed something, in this case simply about turning on or off racial preferences.
- Q. Is this the same approach that you take in connection with your academic work?
- 10 A. Yes.
- 11 Q. Now, you identified four steps, the first of which was
  12 creating the data set. What data was your starting point here?
- A. So we have six admission cycles for the UNC data. I believe they were covering the graduating -- the groups that
- would have graduated at UNC, if they did so in four years,
- 16 | between 2016 and 2021.
- 17  $\|Q$ . And how many applicants were in that original set total?
- 18 A. Over 200,000.
- 19  $\mathbb{Q}$ . What kind of information about those 200-some thousand were
- 20 | in that data set?
- 21 A. So you've got things related to their demographics, so
- 22 that's going to be things like race, gender, whether you're
- 23 | first-generation college, whether you applied for a fee waiver.
- 24 | That's going to have things related to your academics, and this
- 25 is going to include things like your grades and test scores.

- 1  $\parallel$  And then it's going to have the UNC's ratings as well.
- 2  $\parallel$  Q. Beyond the applicant data that you just described, did you
- 3 | review any other materials produced in this case?
- 4 A. Many other materials, you know, things from reports by
- 5 | Carolina, you know, to deposition testimony, to, you know, the
- 6 expert reports in the case by Professor Hoxby and
- 7 Mr. Kahlenberg.
- 8 Q. Let's turn back to the data set. As we mentioned, there's
- 9 data on more than 200,000 applicants.
- 10 Did you do anything to prepare that data set for your
- 11 | statistical analysis?
- 12 | A. I did.
- 13 Q. And what was it?
- 14 A. Well, there's a set of applicants I don't think are
- 15 relevant to the admissions process, and so what we're doing at
- 16 | the beginning is focusing the data set on applicants that we
- 17 | believe (indiscernible) --
- 18 (Court reporter requests clarification.)
- 19 THE WITNESS: -- are relevant to the admissions
- 20 process here. So, I mean, as an example, some people have
- 21 | incomplete applications. We know that they're rejected, so
- 22 | they really shouldn't be a part of our model of admissions.
- 23 Q. (By Mr. McCarthy) Let's stop there for just a second.
- 24 Did you prepare a set of demonstratives for today?
- 25 || A. I did.

- 1 Q. I'd like to take a look at the first slide.
- 2 Okay. Can you tell me generally what this slide shows?
- $3 \parallel A$ . Well, this shows the number of observations that we have
- 4 | and the various cuts that I made to the data, both for in-state
- 5 and out-of-state applicants.
- 6  $\parallel$  Q. So you mentioned in-state and out-of-state applicants. Did
- 7 you do anything to treat them separately?
- 8 A. Well, a lot of -- almost all my analysis looks at them
- 9 separately. We can, obviously, combine the two to get the
- 10 | total.
- 11 | Q. And why did you group in-state and out-of-state applicants
- 12 | separately?
- 13 A. Well, it's quite clear that admissions is much more
- 14 | competitive out of state than in state, and that in part has to
- 15 do with the way the Carolina system works, where you're only
- 16 supposed to have at most 18 percent of your class be out of
- 17 state.
- 18 Q. Okay. Let's take a closer look at this slide. Starting
- 19 from the top, I think you said that this slide describes
- 20 | different groups of applicants that you took out of the data
- 21 | set?
- 22 | A. It does.
- 23 Q. Okay. And what was the first category of applicants?
- 24 A. So the first category was the category I was just talking
- 25 about, which are those who either withdrew their application or

- had an incomplete application, and all those people were rejected. So they're not really competing for admissions in
- $3 \parallel \text{the same way.}$
- 4  $\mathbb{Q}$ . And what's the next category of applicants you've
- 5 | identified here?
- 6 A. So the next one is if you got a rating of zero on one of
- 7 UNC's ratings. And for that, that's just sort of bad data, so
- 8 we took them out. They're a very small percent of the total
- 9 sample.
- 10 | Q. What is the next category of applicants on your list there?
- 11 A. Next is any special, and there's a series of flags in the
- 12 UNC database. Some of them I was able to identify, and others
- 13 | I couldn't tell. And these are going to be things like whether
- 14 or not you were a varsity athlete. And so if we think about
- 15 something like varsity athletes, the admissions process
- 16 operates very differently for them.
- 17 | Q. By that do you mean recruited athletes?
- 18 A. That's what I mean, yes.
- 19 And so for -- when we see these flags in the database,
- 20 | these are coming from groups where they were admitted at least
- $21 \parallel 97$  percent of the time. Now, we're going to come back to that
- 22 | because you can put them back into the data set and it really
- 23 doesn't change my findings, as long as we handle them
- 24 | appropriately.
- 25  $\parallel$  Q. So why is it that you at least initially removed those

- observations from the data set?
- 2 | A. Because there was something different about those
- 3 | applicants; and when we think about something like recruited
- 4 | athletes, particularly in a place like UNC, the admissions
- 5 process is going to work differently for them.
- Now, for others it may be the case that the admissions
- 7 process works just the same, they just happen to be really
- 8 good. But that's not really going to affect. That's just
- 9 going to hurt the accuracy of my model because those are people
- 10 that are very easy to predict their admissions decisions.
- 11 | Q. What's the next category of applicants?
- 12 A. The next category are foreign applicants, so people not
- 13 from the U.S.
- 14 | Q. And why did you remove those from the data set?
- 15 A. Well, my understanding is this case is about domestic
- 16 | applicants; and at least at a lot of universities, for example,
- 17 | need-blind admissions will not apply to foreign applicants.
- 18 Q. So looking back on this task overall, at the end of this
- 19 process, how many applicants did you have both in state and out
- 20 of state for analysis?
- 21 A. So in state I ended up with over 57,000, so we lost about
- 22 | 12 percent of the applicants. And then out of state, we had
- 23 over 105,000, and we lose a higher percentage there primarily
- 24 because of the foreign applicants.
- 25 Q. Thank you.

- The next step that you previously identified in your process was to conduct a descriptive analysis, and could you remind us again what a descriptive analysis involves? That just involves looking at the patterns in the data. MR. MCCARTHY: Can you put up Slide 2, Mr. Lawrence? (By Mr. McCarthy) You previously mentioned residency. Did 0. you look at residency to see whether there were any noticeable patterns regarding admission of students by residency? A. I did. What this slide shows is that while UNC's overall acceptance rate is a little above 25 percent, that's masking pretty large differences between in-state and out-of-state applicants. So out of state the acceptance rate is, you know, 13 1/2 percent, and in state it's just a little below 50. Q. So as a practical matter, what does this mean about admission to UNC as between in-state on the one hand and out-of-state applicants on the other? A. Well, admissions out of state is like applying to a, you
- 17 know, very selective school, whereas in state, you know, it's 18 much more of a moderately selective school. 19
- 20 Did you look at admit rates by race along these lines?
- 21 Α. I did.

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- 22 And can you tell us what's on this slide?
- 23 A. So this slide shows admission rates by race and residency 24 I should say all these descriptive statistics are after I made all my cuts to the sample.

- Q. And what do you see here in this slide?
- 2 A. Well, the first row shows the in-state admission rate by
- 3 | race, and what you can see here is that the white admission
- 4 | rate and the Asian American admission rate are both above
- 5 | 50 percent. And so that's actually substantially higher than
- 6 what it is for African Americans and Hispanics in state. So
- 7 | for African Americans, we're talking about over 20 percentage
- 8 points lower, at 30.5 percent, and for Hispanics, it's around
- $9 \parallel 41 \text{ percent.}$
- 10 Q. And did things look differently out of state?
- 11 | A. It looked much differently out of state. Now whites have
- 12 the lowest admit rate at 10.9 percent. Asian Americans are at
- 13 | 16.6 percent, which is very close to what it is for African
- 14 Americans at 16.7 percent, and Hispanics actually at the
- 15 | highest out of state at 20 percent.
- 16 Q. Just to be clear, these are simply overall admission rates
- 17 | that do not account for differences in qualifications among
- 18 applicants, correct?
- 19 A. That's correct.
- 20  $\parallel$  Q. Did you look at the basic qualifications of the applicants?
- 21 A. I did.
- 22 Q. And did you prepare a slide?
- 23 | A. I did.
- 24  $\mathbb{Q}$ . What did the data show on this slide at a high level?
- 25 | A. It's showing the summary statistics by race for in-state

- 1  $\parallel$  applicants, lots and lots of summary statistics.
- $2 \parallel Q$ . I can see that it's organized by race, and in the first
- 3 three of the three columns for white applicants, there's a
- 4 | header there that says "Reject."
- 5 What do the data in that column show?
- 6 A. What this shows is the mean of each of these variables
- 7 conditional on being rejected. So when we look at the first
- 8 entry, what that says is almost 57 percent of white rejects are
- 9 female.
- 10 Q. And let's look at the second column. This one has a header
- 11 | that says "Admit."
- 12 What do the data in that column show?
- 13 A. This shows the mean characteristics for those who have been
- 14 admitted to UNC. And, again, now for the first entry there for
- 15 | females shows that it's a little over 60 percent of admitted
- 16 student -- white students are female.
- 17 | Q. And I want to look at the third column there as well. That
- 18 one has a header that says "All."
- 19 A. So that's referring to all the white applicants. Almost
- 20 | 59 percent of white applicants are female.
- 21  $\parallel$  Q. And so if we look at those three cells that you just
- 22 mentioned for white female applicants, what does that tell us
- 23 about their relative admission?
- 24 A. I'm sorry. Can you repeat the question?
- 25 Q. I'm asking -- sorry. If we look at those three entries

- 1 | that you just mentioned there that show the rate -- not rate,
- 2 | but they show different values for female white applicants in
- 3 each one of those categories, does that tell you anything about
- 4 | female applicants there?
- $5 \parallel A$ . Yes. Basically, if the admit number is higher than the
- 6 reject number, then that's a variable that's positively
- 7 correlated with admission; and roughly, the further apart those
- 8 | numbers are, the more strong that correlation is. So you see
- 9 that for white admitted students, that number is a little bit
- 10 higher for female than for rejects, but they're pretty close.
- 11 | In other cases, they're going to be much further apart.
- 12 | Q. And the other columns in here are all similarly organized
- 13 by race?
- 14 A. That's right.
- 15 Q. So you mentioned this idea of positive correlation. What
- 16 did the data in this slide show about which factors are
- 17 | important to admission at UNC?
- 18 | A. Well, this is just showing correlation. So to say that
- 19 they actually are important, we're going to have to estimate
- 20 the model. But with any trace, you know, you can see that
- 21 | higher test scores, both math and verbal, are going to -- the
- 22 | numbers are going to be higher in the "Admit" column, so it's
- 23 positively correlated. They're going to have a higher rank in
- 24 their class, the high school percentile variable. They're
- 25 going to have higher grades, the GPA variable.

- . Q. Let me stop you there from --
- 2 A. Yes. I was going to say, then, for all the ratings, you
- 3 see the same pattern.
- 4 | Q. Thank you. So I just want to note something on the slide
- 5 | here. You mentioned the SAT scores and the GPA. There's a
- 6 | note there that says "z-scores" next to those.
- 7 A. That's right.
- $8 \parallel 0$ . Is that a method that relates to standard deviations?
- 9 A. Yes. So here we've converted things into -- so that the
- 10 | variable in the whole applicant pool as being zero and standard
- 11 deviation of "1" just so it's easier for economists to compare
- 12 | the variables.
- 13 Q. Thank you. And those scores can be positive or negative?
- 14 A. They can.
- 15  $\|$  Q. And what does that represent, if the z-score is positive or
- 16 | negative?
- 17 A. So positive would be above the mean, negative will be below
- 18 | the mean.
- 19 Q. What did you find specifically with respect to test scores?
- 20 | A. Well, test scores are positively related to admissions for
- 21 | every racial group. So you'll notice that in the "Reject"
- 22 | column, for example, for whites, the SAT math is minus .69, but
- 23 | for admits, it's .06, so over half a standard deviation higher
- 24 there. You can see the same thing for Asian Americans. That
- 25 gap is even bigger, you know, a full standard -- just about a

- full standard deviation, not quite. And similarly for African
  Americans and Hispanics, the same pattern where admits have
- 3 substantially higher SAT math scores and higher SAT verbal

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scores as well.

correlated with admission too?

holds for every racial group.

- Q. You mentioned that GPA is also positively correlated with
- admission, correct?

  A. That's right. And here again, you can see that -- all the
- numbers for every race. All the entries in the "Reject" column are negative, and all the ones in the "Admit" column are positive.
- Q. Are UNC's ratings, the five ratings that we've heard about that they assign to applicants -- are those positively
  - A. They are. So, again, you can see for whites, if we look at, say, the program rating as an example, higher scores here are better. So you'd like to, you know, get a 10. And, you know, for admits, the average is 7 1/2; and for rejects, it's 5.3. And that's going to hold true on each of those ratings, performance and extracurricular. For the essay and personal quality rating, they don't really use the full ten-point scale, and so I'm looking at whether you got above a 5 on that. And, again, you see that you're more likely to get above a 5 on your essay, more likely to get above a 5 on personal quality if you're admitted than if you're rejected. And that, once again,

- Q. Does your slide reveal anything about applicant test scores and grades across races?
- 3 It does. So, you know, in part because of the history of 4 our country, these things are pretty different across racial groups. So African Americans who are applying in state have 5 substantially lower test scores, lower rank in their class, and 6 7 lower grades than other applicant groups. So here under the "All" column for African American for SAT math, it's negative 8 9 1.3.; whereas for Asian Americans, it's .04. Those are the two 10 extremes here. So as it turns out, Asian American students who 11 are rejected from UNC in their in-state process actually have higher SAT math scores than African American students who are 12
- 15 Q. What patterns do you see for UNC's ratings across races?

admitted to UNC. That's true for the SAT math score. It's not

- A. For the first four ratings, they actually matched similar to what we see for test scores and grades. Namely, whites and Asian Americans scored better on UNC's program rating,
- performance rating, extracurricular rating, and essay rating
  than African Americans and Hispanics. When we get to the
- 21 personal quality rating, it flips, and there African Americans
- 22 and Hispanics rate higher on the personal quality rating than
- 23 whites and Asian Americans.

for the verbal.

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Q. Let's stop there for a moment. You've just explained that on average white and Asian American applicants are stronger on

- all academic qualifications and in all of UNC's ratings except
  the personal quality rating, correct?
- 3 A. That's correct.
- $4 \parallel Q$ . Does that make sense when we think about the admit rates
- 5 you told us about for the various racial groups in the state?
- 6 A. So that could be an explanation for why they're so
- 7 different, and maybe they would be even more different absent
- 8 | racial preferences. That's what we have to investigate. But
- 9 | it also might not explain it.
- 10 Q. At this point this is just descriptive analysis?
- 11 A. Exactly.
- 12 Q. Did you also look at the basic qualifications of
- 13 | out-of-state applicants?
- 14 | A. I did.
- 15  $\parallel$  Q. And did you prepare a slide?
- 16 | A. I did.
- 17  $\parallel$  Q. What -- at a high level, what did the data on this slide
- 18 | show?
- 19 A. Well, this is basically a repeat of the last slide, but for
- 20 out-of-state applicants. So we're going to be looking at the
- 21 | summary statistics by race, both conditional on being rejected
- 22 or conditional on being admitted and then just overall.
- 23 Q. What factors positively correlate with admissions for
- 24 | out-of-state applicants?
- 25 A. They line up quite well with what's happening in state.

You're going to see that higher test scores are positively related to admissions, so the entries for SAT math and SAT verbal are always going to be higher in the "Admit" column within race than in the "Reject" column. You're going to see the same thing with regard to UNC's ratings, high school GPA and such. It's always going to be the case that the admits have better UNC ratings than the rejects, and that's going to hold true for all the ratings.

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The one thing that looks a little bit different in this context is what's going on with legacies. So if you look at white legacies, you didn't see as near a big of a gap for in state as you do for out of state. So for white legacies, 17.8 percent of white admits are legacies, but only 2.6 percent of white rejects are legacies.

Q. Did you find any patterns along the lines of academic qualifications across races for these out-of-state applicants?

A. Yes. The academic patterns are very similar. It's again the case that whites and Asian Americans have higher test scores and higher class rank than African Americans and Hispanics. GPA, it's actually Hispanics are just slightly higher than whites. And then you can again see this pattern where Asian American rejects actually have higher SAT math scores than both African American admits. This is comparing the .48 for Asian American rejects to the minus .08 for African American admits and the .4 for Hispanic admits.

- Q. So you've explained that on average white and Asian
- 2 | American applicants are stronger on academic qualifications,
- 3 | correct?
- 4 A. Correct.
- 5 Q. What kind of patterns do you see for UNC's ratings across
- 6 race for this out-of-state applicant pool?
- $7 \parallel A$ . Well, UNC's ratings sort of mirrors what we had before.
- 8 | So, for example, if you take the -- well, the program rating,
- 9 Hispanics do a little bit better than whites, but as a general
- 10 | rule, they're fairly close there. Asian Americans have by far
- 11 | the highest program rating. If you look at the performance
- 12 | rating, whites and Asian Americans have substantially higher
- 13 performance ratings than African Americans and Hispanics. They
- 14 | have higher extracurricular ratings. They have higher essays.
- 15 | The whites and Hispanics are similar. But then we get to the
- 16 personal quality, things change, and there the order is
- 17 | Hispanic, African American and Asian American are the same and
- 18 | then white.
- 19 Q. So how does this square with the admit rates that you
- 20 showed earlier for the various racial groups out of state?
- 21 A. Well, unless the personal quality measure sort of trumps
- 22 | everything, it's hard to reconcile that. It suggests a role of
- 23 | racial preferences because African Americans and Hispanics had
- 24 | higher admit rates but worse qualifications for everything
- 25 except the personal quality measure.

- 1 Q. Thus far, your descriptive analysis has involved comparing
- 2 | admit rates and qualifications of various racial ethnic groups
- 3 | overall, correct?
- 4 A. That's correct.
- $5 \parallel Q$ . Did you do any descriptive analysis that involved comparing
- 6 applicants that had similar academic qualifications?
- 7 | A. I did.
- 8 Q. Did you prepare this slide?
- 9 A. I did.
- 10 Q. Can you explain what it is?
- 11 A. So what we're trying to do is just create a summary measure
- 12 of the academic strength of the applicant, and so here what
- 13 we're going to do is take their SAT score -- we're going to try
- 14 | to equally combine their SAT score and their high school
- 15 grades. And, of course, SAT scores are on a 1600-point scale,
- 16 and grades here are more on a 4-point scale. So in order to
- 17 combine them, we calculate a z-score for each, and then we add
- 18 | them together. And this is just a sort of quick way of
- 19 summarizing the strength of the applicant on academics.
- 20  $\parallel$  Q. And this metric that you created, what do you call it?
- 21 A. I call it an academic index.
- 22  $\parallel$  Q. And you constructed this with the data that UNC produced?
- 23 A. That's correct.
- 24 Q. And it's meant to be a summary statistic, you said?
- 25 A. Just a summary of their academic qualifications, yes.

- Q. Have others used this type of summary statistic?
- 2 A. Other people have created things like this in terms of an
- 3 academic index. Harvard, for example, has one. It has
- 4 | slightly different weights than the one I have here, but it's
- $5 \parallel \text{just}$  a quick way of summarizing the strength of the applicant.
- 6 And, in fact, the whole Ivy League does. And then I've used
- 7 something like this in my past papers just to illustrate -- as
- 8 | a way of having a summary measure of academic ability.
- 9 Q. Do other economists use this type of summary statistic in
- 10 | this area?
- 11 | A. They do.
- 12 Q. So why did you create this academic index?
- 13 A. Well, what I'm interested in doing is in seeing how people
- 14 who have similar grades and test scores -- how they're treated
- 15 differently in the admissions process.
- 16  $\parallel$  Q. Did you create this academic index for every applicant in
- 17 | the data set?
- 18 A. No, and the reason for that is for about 5 percent of
- 19 in-state applicants and for about 30 percent of out-of-state
- 20 applicants some of the information is missing. So you don't
- 21 | have the information on either SAT or the high school grades.
- 22 | And really, I shouldn't say it's always because it's missing.
- 23 You had to be graded on a 4-point scale, so that explains what
- 24 | is going on out of state. It may be graded on a 100-point
- 25 scale. So we're only looking at the people for whom we have

- these -- these measures.
- 2  $\|$  Q. Is that set of applicants for which -- whom you created the
- 3 academic index -- are they representative of the in-state and
- 4 | out-of-state pools?
- $5 \parallel A$ . They seem to be pretty representative.
- 6 Q. Did you do any analysis of whether it is representative of
- 7 | the entire pool?
- 8 | A. I did.
- 9  $\mathbb{Q}$ . What do the data on this slide show?
- 10 A. So what this slide shows is compares the admit rates in my
- 11 | full sample, both in state and out of state, to the ones where
- 12 they actually had an academic index, so the 95 percent of
- 13 applicants who I created an academic index for in state and the
- 14 | 70 percent out-of-state applicants for which I created an
- 15 | academic index.
- 16 Q. Let's look at the second panel on this slide, the
- $17 \parallel \text{out-of-state}$  applicants there. How do admit rates in the full
- 18 | sample compare with those for whom you've created an academic
- 19 | index?
- 20 | A. They're very close. They're just a tiny bit higher in the
- 21 | first row, but that's pretty much the same.
- 22 Q. Then they're similar overall in -- within race?
- 23 A. That's right.
- 24 | Q. Does UNC use an academic index?
- $25 \parallel A$ . They do not.

- Q. So this was just a summary statistic that you created to help aid your analysis?
- A. Yes, it's purely motivational to set up what the basic patterns in the data are.
- Q. After you created this academic index for these applicants, what did you do with it?
- A. So what I'm going to do is then see how that academic index relates to the other ratings. You know, so do people who get high values on this academic index do they also get higher ratings? And then look to see, given the same sort of academic index, what is your probability of being admitted and how does that vary by race.
- Q. And how did you arrange them in order to compare applicants with similar academic qualifications?
  - A. I'm going to break it up into ten deciles, and so the way you want to think about that is that the top decile, which is going to be the tenth decile, these are the people who have they're at the 90 to 100 percent, you know, in terms of their ranking on the academic index; and then we're going to take the next 20 percent sorry next 10 percent to get the ninth decile and keep on going down.
- Q. Have you conducted any analysis about whether higher academic indexes are associated with higher UNC ratings?
- 24 | A. I have.

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 $25 \parallel Q$ . Did you prepare a slide?

- A. I did.
- 2 | Q. What is on the slide?
- 3 A. This slide shows for in-state applicants -- I should have
- 4 also clarified, all these deciles are done so that this is
- 5 | 10 percent of in-state applicants in there. We're not doing
- 6 | out-of-state/in-state comparisons.
- 7 Q. Thank you for that clarification.
- 8 A. Think about 10 percent of the data being in that top decile
- 9 and so on.
- But what this slide is showing is the share you get above
- 11 | the median rating on each of UNC's ratings by academic decile.
- 12 Q. So just to make sure I understand what you mean by deciles,
- 13 | if we look at the first column, academic decile, that 10
- 14 underneath that, the 10 -- that's the one you said is the top
- 15 | decile?
- 16 A. That's right. They're the ones who have the highest
- 17 | academic indices.
- 18 Q. So those would be the people between the 90th and 100th
- 19 percentile among a ranking of all the academic indexes?
- 20 | A. Among all the ranking of the academic indexes for in-state
- 21 applicants for whom we had an academic index.
- 22 Q. Thanks again for the clarification.
- What, then, do the numbers in the first column mean as you
- 24 look downward?
- 25  $\parallel$  A. So if we think about -- oh, in the first column? So that's

- 1 just going to -- the academic decile column, we're just moving
- 2 down. So we've got the top 90 to 100 percent. Then you've got
- 3 the 80 to 90 percent and so on.
- $4 \parallel Q$ . If we look at the program column right next to that, in the
- 5 | very top cell right there, which would be the tenth decile,
- 6 | what does that 88.7 figure mean?
- 7 A. That means that if you're in that top 10 percent of the
- 8 academic index, over 88 percent of the time you're going to
- 9 have a rating in the program rating that's above the median.
- 10 | So it's likely -- very likely you're going to have a high
- 11 program rating.
- 12 Q. Okay. Let's stick with that column. What do the data in
- 13 this column show regarding the program rating?
- 14 A. Well, every time you move down a decile -- so we're
- 15 starting at that tenth decile, you move down to ninth -- the
- 16 | share of applicants getting above the median rating goes down.
- 17 | So you can see it goes down from 88.7 to 74.6, then down to
- 18 | 65.2. Every time it's going down.
- 19 Now, what that means is that people who do better on the
- 20 | academic index also tend to do better on the program rating.
- 21 So these things are positively correlated.
- $22 \parallel Q$ . And if we look at the next column, performance, do we see
- 23 | the same pattern?
- 24 A. You see the exact same pattern. The highest number there
- 25  $\parallel$  is in the top one for academic, Decile 10. So over 84 percent

- 1 of the top decile is getting above the median rating on the
- 2 performance rating, but by the time you get down to the lowest
- 3 decile, Decile 1, it's less than 2 percent.
- $4 \parallel Q$ . And if we look to the next column over, the same pattern?
- 5 A. The same pattern for activities. You don't get -- it's a
- 6 | little bit more compressed, but it's the same pattern where,
- 7 | again, as you move down the table, you're getting lower and
- 8 | lower values.
- 9  $\mathbb{Q}$ . And then if we look at the essay rating?
- 10 A. Same exact -- same pattern.
- 11 | Q. Personal quality rating?
- 12 A. Same pattern.
- 13  $\|Q$ . Did you do a similar analysis with out-of-state applicants?
- 14 | A. I did.
- 15 Q. And did you prepare a slide showing your analysis?
- 16 | A. Yes.
- 17  $\parallel$  Q. And what do the -- at a high level here, what did the data
- 18 on this slide show?
- 19 A. Well, it's repeating the same table we just looked at, but
- 20 | this time for out-of-state applicants. So we look at the share
- 21 above the median rating for each of UNC's ratings by these
- 22 | academic index deciles.
- 23 Q. And is there the same relationship between the academic
- 24 | index and UNC's ratings for out-of-state applicants as there
- 25 were in state?

- 1 A. There is, yes. So, again, let's look at the program
- 2 | rating. In that top decile, we have 85.9 percent getting above
- 3 the median rating. If you go down one decile, it's 79 percent,
- 4 and the numbers just keep on going down to the lowest decile,
- 5 which is 15.3 percent.
- 6 Q. Similar patterns for performance rating for out-of-state
- 7 | applicants?
- 8 A. Similar patterns. You start off at 82 percent. By the
- 9 time you're at the end, you're at less than 4 percent.
- 10  $\mathbb{Q}$ . Then we move over to the extracurricular activity rating.
- 11 | Same pattern?
- 12 A. Same pattern. More compressed, but the same pattern.
- 13  $\|Q$ . And then again with the essay rating?
- 14 A. Again with the essay rating and again with the personal
- 15 | quality rating.
- 16 And so what this means is that when we think about these
- 17 | academic index deciles, you could view it and it's just about
- 18 academics, but it is a bit more than that because it's
- 19 positively correlated with all of UNC's ratings as well.
- 20 | Q. So what's the overall takeaway here?
- 21 A. Well, the overall takeaway is that higher academic --
- 22 | higher scores on test scores and grades are also associated
- 23 with higher UNC ratings.
- 24 Q. On both the academic and the nonacademic UNC ratings?
- 25 A. On both, everything from program performance to personal

- 1  $\parallel$  qualities, and that holds both in state and out of state.
- $2 \parallel Q$ . Did you analyze how racial groups are distributed across
- 3 | the deciles?
- 4 | A. I did.
- $5 \parallel Q$ . And did you prepare a slide from that analysis?
- 6 A. I did.
- $7 \parallel Q$ . And what do the data in this slide show?
- 8 A. So this slide shows the number of in-state applicants in
- 9 each academic index decile.
- 10 Q. And the first column there -- I guess it's actually the
- 11 second column -- sorry -- where it says "White," what does that
- 12 | show?
- 13 A. That shows the number of white applicants in each of those
- 14 deciles. And so generally the numbers are higher for the
- 15 "White" column because in the applicant pool there are a lot
- 16 more white students.
- 17 And what you see there is that, with the exception of
- 18 moving from Decile 10 to Decile 9, once you get to Decile 9,
- 19 the number of applications are falling. So at Decile 9 we're
- 20 | talking about 4,180 applicants, but by time you get to the
- 21 | lowest decile, it's down to 1,848 applicants. The fact that
- 22 | it's falling means that white applicants are disproportionately
- 23 | in the higher academic index deciles.
- 24  $\parallel$  Q. As we move to the right of the column, what kind of
- 25 pattern, if any, did you find with regard to Asian American

applicants?

- 2 A. Well, Asian Americans also disproportionately have high
- 3 | academic indexes. There you can see that we start off with
- 4 | 1,139, and then as you move down, you're getting lower and
- $5 \parallel \text{lower numbers}$ . There's a slight jump between the fifth and the
- 6 fourth decile that goes against that trend, but otherwise, the
- 7 | numbers are always going down. So we started off with 1,139,
- 8  $\parallel$  and then it goes down to 376.
- 9 | Q. Let's move over one column more for African American
- 10 applicants. Again, this is in state. What kind of a pattern
- 11 do you see there?
- 12 A. Really the reverse. So there are very few African
- 13 Americans in that top decile. There were 67. And then as you
- 14 | go down the deciles, the numbers grow substantially all the way
- 15 to the lowest decile where there's 2,462 African Americans. So
- 16 | African Americans disproportionately have lower test scores and
- 17 | grades.
- 18 Q. Move over one more column, Hispanic applicants. Again,
- 19 this is in state. And what kind of a pattern do you see there?
- 20 | A. Well, it's similar to what's going on with African
- 21 | Americans, but it's a bit muted. So for Hispanics, we have 128
- 22 | applicants in the top decile, and then generally it's growing
- 23 | as you move down deciles. There's one exception when you move
- 24 | from Decile 8 to Decile 7, but besides that, it's growing as
- 25 you go down the deciles. So you end up -- you start off with

- 1  $\parallel$  128, but by the time you get to the bottom decile, it's 582.
- 2 Q. Overall, what does the distribution of applicants across
- 3 deciles tell you about academic qualifications?
- 4 A. Well, there are large cross-racial differences in terms of
- 5 UNC's applicant pool in state.
- 6 Q. Did you look at this same data on a percentage basis?
- 7 | A. I did.
- 8 | Q. And did you prepare a slide?
- 9 A. I did.
- 10  $\|Q$ . And what do the data show in this slide?
- 11 A. This slide shows the percentage of in-state applicants in
- 12 each academic index decile.
- 13 Q. So starting at the top decile, what do you see there?
- 14 A. So in the top decile, 10.7 percent of white applicants are
- 15 | in the top decile. Keep in mind that the sum of all those
- 16 | numbers is going to equal 1. So we're looking at the share of
- 17 | whites who are in each decile.
- 18  $\parallel$  Q. And when you say the sum of all of those numbers, you mean
- 19 | in that first column?
- 20 A. In that first column, number 1.
- 21  $\|$  Q. If we added all that up, it would total a hundred percent?
- 22 | A. Yeah.
- 23 Q. Okay. Thank you.
- 24 And what else do we see if we look across on that top
- 25 decile?

- 1  $\parallel$  A. So 10.7 percent of whites are in the top decile. Almost
- 2 20 percent of Asian Americans are in the top decile.
- 3 Unfortunately, less than 1 percent of African Americans are in
- 4 | the top decile, and less than 4 percent of Hispanics are in the
- 5 | top decile.
- 6 | Q. What happens as you move downward by decile?
- 7  $\|$  A. Well, if you move downward by a decile, then we're going to
- 8 see shifts. So, for example, for Asian Americans, the numbers
- 9 are, you know, generally going down in terms of those shares,
- 10 and similarly for whites. Once -- if you get outside the tenth
- 11 decile, the numbers are all going down on the shares. And then
- 12 for African Americans and Hispanics, they're going up, again
- 13 because they disproportionately represent lower academic index
- 14 deciles.
- 15 Q. So what happens when you get to the bottom decile?
- 16 A. When you get to the bottom decile, you have a little over
- 17 | 5 percent of whites, 6 1/2 percent of Asian Americans, over
- 18 32 percent of African Americans, and a little less than
- 19 | 17 percent of Hispanics.
- 20 | Q. We've been discussing what your academic index deciles
- 21 | reveal about the relative academic qualifications of
- 22 | applicants. Did you consider admit rates across deciles?
- 23 | A. I did.
- 24 | Q. And did you prepare a slide to show that analysis?
- 25 || A. I did.

- Q. What's on this slide?
- 2 A. So this slide shows in-state admission rates by academic
- 3 | index decile and race.
- 4 Q. If we look over to the column on the far right where it
- 5 | says "All Applicants," what does the data here tell us
- 6 generally about the academic qualifications of in-state
- 7 | applicants?
- 8 A. So the academic index is clearly strongly correlated with
- 9 admission to UNC. So those in that top decile have an admit
- 10 | rate of over 98 percent, and in the bottom decile, it's less
- 11 than 1 percent. And you can see that if we just started at
- 12 that bottom decile, less than 1 percent, the numbers in blue
- 13 there are showing how much it goes up by moving up to the next
- 14 decile. So you go from .89 percent to 5.44 percent. That's a
- 15  $\parallel$  4.55 increase, and then it just keeps going up from there until
- 16 you get to the top.
- 17 | Q. Is the same thing true across racial groups; that is, are
- 18 higher academic indexes correlated with admission for all
- 19 racial groups?
- 20 A. They are. The general pattern is going to be you start off
- 21 | very low in the first decile, but by the time you get to the
- 22 | top, the tenth decile, admissions are in the -- at least above
- 23 | 97 percent.
- 24 Q. Overall, does this slide reveal anything about admit rates
- 25 as between racial groups?

A. It does. So --

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getting in.

- $2 \parallel Q$ . And what does it show us?
- A. Well, when you're in the -- I should say it really depends
  on what decile we're talking about, because when you're in the
  very top decile, pretty much everybody is getting in. They all
- 6 | have admit rates, you know, above 97 percent.
  - But once you get outside of that top decile, then you start to see differences begin to emerge. It's always going to be the case after the top decile that African Americans will have the highest admit rates. The differences are not going to be so large at the ninth decile because, again, most people are
- 13 Q. Are there some deciles where there's greater disparities?
- 14 A. There are. So if we look at, for example, the fifth
- 15 decile, there you can see that whites and Asian Americans have
- 16 admit rates that are below 30 percent, but the African American
- 17 admit rate is over 40 points higher, at 71 percent, and the
- 18 | Hispanic admit rate is almost 54 percent.
- 19 Q. How is that, when African American and Hispanic applicants
- 20 have higher admit rates in the fifth decile?
- 21 | A. Well, you can have higher --
- 22 | Q. I'm sorry. I want to look down at the bottom first. If
- 23 you look down at the row on the very bottom that says "Total,"
- 24 what are the overall admit rates by race?
- 25 A. So the overall admit rates are similar to what we were

- 1 looking at before in that whites in state and Asian Americans
- 2 | in state have admit rates above 50 percent. African Americans
- 3 have admit rates 30 percent and Hispanics almost 41 percent.
- 4 | Q. So how is that, that African American and Hispanic
- 5 | applicants have the lowest admits rate when they actually have
- 6 | higher admit rates throughout all deciles?
- 7 A. Well, it has to do with how applicants are distributed
- 8 across these deciles. So, you know, over half of African
- 9 Americans are in the bottom two deciles where admit rates are
- 10 | much lower. Whites and Asian Americans are more clustered at
- 11 the higher deciles where admit rates are higher.
- 12 Q. Did you do a similar analysis for out-of-state applicants?
- 13 | A. I did.
- 14 Q. And did you prepare a slide showing that analysis?
- 15 | A. I did.
- 16 Q. What did the data show on this slide?
- 17 | A. So it shows out-of-state applicants in each academic index
- 18 decile by race.
- 19  $\|Q$ . Are the patterns similar to what you showed for in-state
- 20 | applicants?
- 21 | A. They're generally similar. The white numbers bounce around
- 22 | a little bit more, but there are, again, very -- you know,
- 23 | fewer white applicants in that bottom decile. For Asian
- 24 Americans, the number of applicants in the top decile is at
- 25 1,900, and then it's going to keep falling from 1,900 down to

- 1 493. And then you can see for African Americans the reverse
- 2 | pattern of what's happening with Asian Americans. In the top
- 3 decile, we have 123 African American applicants, and that rises
- 4 down to 2,674 in the bottom decile.
- $5 \parallel Q$ . Did you look at shares by race in the same manner of what
- 6 you did for in-state applicants?
- 7 | A. I did.
- 8 | Q. And what do the data in this slide show us?
- 9  $\|$  A. They show broadly similar patterns to what we saw in state.
- 10 | The white one is a little flatter here, but, again, whites --
- 11 | their share in the bottom decile is 6.77 percent. You know,
- 12 | for Asian Americans, we start off with almost 17 percent in
- 13 | that top decile, and then the numbers just keep falling until
- 14  $\parallel$  we get to the bottom decile with 4.4 percent.
- 15 And then African Americans sort of -- have sort of a
- 16 reverse pattern to Asian Americans in that less than 2 percent
- 17 | are in the top decile and, in fact, less than 2 percent are
- 18 also in the next-to-the-top decile. But by the time you get to
- 19 the bottom, 39 percent of African American applicants are in
- 20 | the bottom 10 percent for out-of-state applicants.
- 21 For Hispanics, it's a little bumpier, but it's still
- 22 | Hispanics are slightly disproportionately represented in the
- 23 | bottom deciles.
- 24 Q. Did you identify any overall patterns in this slide with
- 25 regard to out-of-state applicants?

- 1 A. Well, you can see that the African Americans are
- 2 disproportionately in those bottom deciles. Asian Americans
- 3 | are disproportionately in the top. Whites are a little bit
- 4 | higher at the top than at the very bottom and Hispanics a
- 5 | little bit higher in the bottom than at the very top.
- 6 Q. Did you also analyze admission rates by academic index
- 7 decile in race/ethnicity for out-of-state applicants?
- 8 A. I did.
- 9 Q. Did you prepare a slide?
- 10 | A. I did.
- 11 | Q. What did the data show in this slide?
- 12 A. So this slide shows the out-of-state admission rates by
- 13 academic index decile and race.
- 14 | Q. Let's start again, like we did last time for in-state
- 15 applicants, by looking at the column on the far right where it
- 16 | says "All Applicants."
- 17 What does that show generally about the academic
- 18 | qualifications of the out-of-state applicants?
- 19 A. Well, the first thing to notice is that the numbers are a
- 20 lot lower here because the out-of-state admissions is so much
- 21 more competitive. But it shows the same pattern where
- 22 | basically if you're in that bottom decile, you're probably not
- 23 getting in, so .4 percent admissions rate. But then as you
- 24 | move up -- every time you move up a decile, you see an increase
- 25 | in admissions chances. It's still going to be very low when

- I you move from the first to the second, 0.4 percent to
- 2 | 1.5 percent to 2.6 percent and so on, but it's always going to
- 3 | be increasing. And then by the time you get to the top, you're
- 4 at almost 47 percent.
- 5 | Q. Now, this pattern you see there with regard to all
- 6 applicants, how the academic index positively correlates with
- 7 admission, do you see this same pattern not only overall, but
- 8 with regard to each racial group?
- 9 A. You do. There will be an occasional blip here or there
- 10 moving from one decile to another as a lower admit rate, but
- 11 | that's the general pattern.
- 12 So you can see it for whites. You would start off with
- 13 .49 percent admit rate in that first decile, and it goes all
- 14 | the way up to 41.6 percent, increasing every time. For Asian
- 15 Americans, it's increasing every time, except the second to the
- 16 third decile where the difference is .28 versus .25 percent, so
- 17 | hardly anything. And African Americans and Hispanics you see
- 18 | are always increasing.
- 19 Q. Do we see the same racial disparities within deciles that
- 20 | favor African American and Hispanic applicants in terms of
- 21 | admit rates?
- 22 A. Given the same academic index deciles, you're going to see
- 23 | higher admit rates generally for African Americans and
- 24 | Hispanics, at least once you get outside of the, you know,
- 25 | lowest decile where hardly anybody is -- anybody is getting in.

- 1 | Q. And I think before you looked at the -- for in-state
- 2 | applicants, you looked at the fifth decile. Why don't we take
- 3 | a look at that for comparison here. What does that data show?
- 4 A. The numbers are really striking here. The white admit rate
- 5 is 2.9 percent. The Asian American admit rate is 1.4 percent;
- 6 and then you see for African Americans, it's 39.6 percent; and
- 7 | for Hispanics, it's almost 16 percent. That 39.6 percent is
- 8 | bigger than all the numbers in the white and Asian columns,
- 9 except those at the very top.
- 10 | Q. Did you do anything to further analyze the academic indexes
- 11 | in admissions?
- 12 A. I don't believe so.
- 13 Q. I'm sorry. I don't mean from this slide. I don't mean to
- 14 | confuse you.
- 15 A. I feel like I'm being set up here.
- 16  $\parallel$  Q. Sorry. Did you analyze how admission by academic decile
- 17 | might work out?
- 18 A. Okay. Yes. So --
- 19 Q. And did you prepare a slide?
- 20 A. Yes.
- 21 | Q. Okay. Thanks. So what did the data show in this slide?
- 22 | A. So this slide shows the number and share of in-state admits
- 23 only if you're admitting from the top deciles. This is not
- 24 what UNC does. UNC takes into account lots of characteristics.
- 25 But it says if we just base it on the academic index alone,

- which doesn't possibly correlate with UNC's ratings, what would the class look like.
- $3 \parallel Q$ . And this is in-state applicants here, right?
- 4 A. This is in-state applicants.
- $5 \parallel Q$ . So what did the data show in the first row of this slide?
- $6 \parallel A$ . So this is showing the actual number of admits for the
- 7 people who are in the decile analysis. So we have 18,080
- 8 | admits, and the share just refers to just to the share among
- 9 these four racial groupings. So the sum of the shares should
- 10 | add up to 1.
- 11  $\|Q$ . And then what does the second row show?
- 12 A. The second row shows what if we just admitted from the top
- 13 deciles until we filled the class. And here again, we're only
- 14 | looking at these four racial groups, so the sum of the number
- 15 of admits is going to be the same here.
- 16 And then what you can see is that the number of white
- 17 | students would go up from, you know, a little over 18,000 to
- 18 over 19,000. Asian Americans would go up from a little over
- 19 3,000 to over 3,400. This comes at the expense of African
- 20 Americans and Hispanics. So for African Americans, it falls
- $21 \parallel \text{from } 2,275 \text{ to } 1,055; \text{ and for Hispanics, there's a loss from}$
- 22 | 1,414 to 1,031.
- 23  $\|Q$ . Did you do a similar exercise with out-of-state admits?
- 24 A. I did.
- 25 || Q. And did you prepare a slide on that?

- A. I did.
- 2 Q. What did the data show in this slide?
- 3 A. So it's going to repeat the analysis of the previous slide,
- 4 but this time out-of-state. So the first row is again going to
- $5 \parallel$  show the actuals. So this is the actual admits for that decile
- 6 sample. And then it says, well, what if we just took people
- 7 | from the top deciles until we filled the class. And there you
- 8 can again see that whites and Asian Americans would increase
- 9 and then pretty substantial drops for African Americans and
- 10 | Hispanics.
- 11 | Q. And how would that affect the racial composition of the
- 12 | admitted group?
- 13 A. Well, the share African American, you know, would fall from
- 14 | 12.7 percent to 1.9 percent. The share Hispanic would fall
- 15 from 14.1 to 8.2, and then you would see corresponding
- 16 increases for whites and Asian Americans.
- 17 | Q. Now, UNC doesn't actually make admissions decisions based
- 18 solely on academic qualifications, correct?
- 19 A. That's correct.
- 20 0. So what was the point of this analysis here?
- 21  $\parallel$  A. The point of this analysis is just to get an idea as to
- 22 | what's in the data and how strong you have to be on other
- 23 things to sort of make up for what we're seeing on the
- 24 | academic -- on the academic front.
- 25 Q. So let's stop for a moment there and look backward. What

- 1 has your descriptive analysis, as you referred to it, shown so 2 far?
- A. Well, the descriptive analysis has shown that whites and
  Asian Americans seem to be stronger on a lot of the things that
  are associated with admission at UNC. They're going to have
  higher test scores, higher grades, typically, and higher
  ratings on UNC's system. And then when we look at -- with,
  again, the one exception being the personal quality measure

that African Americans and Hispanics do better on.

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Then when you look at conditions under the same academic qualifications just with this rough measure, the academic index, you can see pretty wide disparities in admit rates across races. With African Americans, you see you have the highest admit rates by quite a bit, followed by Hispanics, and then we have Asian Americans and whites.

- Q. Does your analysis thus far reveal the effect that race has on admissions decisions at UNC?
- A. No, this is just suggestive. We have to actually do the modeling to try to capture the actual effects of race.
- Q. So what did you do to determine whether UNC's racial preferences are driving African American and Hispanic admit rates?
- A. Well, I'm going to put together a model of UNC's admissions decisions and see what happens to -- what happens to the role race plays as we account for all these different factors.

- $\mathbb{Q}$ . And what kind of a model is it you put together?
- 2 | A. I'm going to be using what's called the logit model, and
- 3 the logit model handles cases where the outcome is binary. So
- 4 | it's a 0/1; 1 will be if you're admitted, zero if you're not.
- $5 \parallel Q$ . So because it's for binary choices, then is a logit model
- 6 useful in modeling admissions decisions?
- 7 A. It is, because admissions decisions can be treated as zero
- 8 or 1.
- 9 Q. Did you prepare some slides to help illustrate what a logit
- 10 model is and does?
- 11 | A. I did.
- 12 Q. So in this graphical representation, what are the inputs to
- 13 the logit model here?
- 14 A. So the inputs are going to be the things that you observe
- 15 | in the data. And we've talked about a lot of these things like
- 16 with regard to demographics. This is going to include race,
- 17 | and female, first-generation college and such. And then you're
- 18 going to have things like the academic variables that we
- 19 discussed, you know, test scores, grades and the like. And
- 20 | then we also see things like UNC's ratings, and then there are
- 21 | a couple of other things. You know, maybe in one year UNC gets
- $22 \parallel$  a lot of applicants, so that makes things more competitive.
- 23 So it's going to take all those things and say, okay, given
- 24 what we know about all those things, how well can we do at
- 25 predicting the probability that an applicant was admitted or

- 1 rejected. And the reason it's a probability is because there's
- 2 going to be some part that we don't see, right. We only get to
- 3 see all the -- we see an extraordinary amount of variables in
- 4 | this case, but you don't get to see everything. It's part of
- 5 what makes it holistic.
- 6 Q. Let's take a look at the next slide. What is the goal that
- 7 you're trying to reach with your logit model?
- 8 A. Well, we're trying to approximate what actually happens in
- 9 UNC's admissions process as best we can.
- 10 Q. What does the equation on this slide represent?
- 11 A. So the way you want to think about it is we have these
- 12 observed characteristics, and we're using particular examples
- 13 here of, say, some of UNC's ratings. So you have the program
- 14 | rating and, you know, how much a program rating is going to
- 15 reflect -- matters is going to be reflected in the coefficient
- 16 on that. The coefficients here are the things -- are the
- 17 | letters. So it's going to try to tell you how much each of
- 18 these different factors matters in the admissions decisions.
- 19 Q. So what on this slide depicts the coefficients?
- 20  $\parallel$  A. The letters, so the A, B, C, D, and capital R.
- 21 | Q. And can those coefficients be positive or negative?
- $22 \parallel A$ . They could. So probably not on the ratings here. We think
- 23 those things are going to positively affect your admission
- 24 | status, but you could have a variable that negatively affects
- 25 your probability of being admitted, in which case the

- 1 coefficient would be negative.
- $2 \parallel Q$ . What does the coefficient R represent?
- 3 A. So the coefficient R represents what we see how race
- 4 | matters in the admissions process, and that's all going to be
- 5 | relative to some omitted group, right. So in this case, our
- 6 omitted group is going to be whites; how much higher are your
- 7 | admissions chances if you're black or Hispanic.
- 8 | Q. And by "omitted group," you mean like a baseline group?
- 9 A. Baseline group, yes.
- 10 Q. So if you have a baseline group, then what would the
- 11 | coefficient be?
- 12 A. Well, the coefficient for the baseline group is zero, and
- 13 so everything is sort of relative to that.
- 14 | Q. Does the magnitude of a coefficient matter?
- 15 A. It certainly can, and particularly, you know, when the
- 16 | variable is scaled appropriately, as it would be in the case of
- 17 | race, it's going to tell you something about the size of -- the
- 18 | size of the preference or penalty.
- 19  $\|Q$ . What can you do with the output of your logit model?
- 20 A. They give you many things. You can predict the probability
- 21 of being admitted, and you can also predict the probability of
- 22 | being admitted once we turn off various features. So we'll be
- 23 able to see how race affects the admissions process through
- 24 effectively, you know, treating black students as white in the
- 25 admissions process.

- 1 Q. Did you use the outputs of your model in connection with
  2 work with Richard Kahlenberg in this case?
  3 A. I did.
  4 Q. Let's talk about that briefly. What did you do with
- 4 Q. Let's talk about that briefly. What did you do with 5 Mr. Kahlenberg?
  - A. So --

MR. FITZGERALD: Objection, Your Honor.

THE COURT: Basis.

MR. FITZGERALD: It's been very clear in this case that Professor Arcidiacono has committed not to be offering testimony as to Mr. Kahlenberg's models, and I don't think — since we've been clear on that since the depositions, Mr. Kahlenberg should justify his simulations on his own. He is dealing with Count II, and Professor Arcidiacono is dealing with Count I, and I think that's been clear from discovery.

MR. MCCARTHY: Your Honor, Professor Arcidiacono is not going to be offering any opinions on Mr. Kahlenberg's analysis. The idea here is just that Mr. Kahlenberg and Professor Arcidiacono worked together in that Professor Arcidiacono created the models that Mr. Kahlenberg used. It was done at Mr. Kahlenberg's direction. So I just want to make sure and get in the record that Professor Arcidiacono created those models for Mr. Kahlenberg at Mr. Kahlenberg's direction. He won't offer any opinion on it at all.

1 MR. FITZGERALD: But, Your Honor --2 MR. MCCARTHY: This is actually covered in the 3 deposition. 4 MR. FITZGERALD: Your Honor, we disagree. Just to be 5 plain spoken, Your Honor, Mr. Kahlenberg sponsored simulations, and at his deposition when we handed him his work papers, he 6 7 had never seen them before. So if Mr. Kahlenberg is the expert to sponsor simulations for the Court -- we took discovery of 8 9 him, and we couldn't get information from him on this. 10 Professor Arcidiacono was not offered as a witness to sponsor 11 Mr. Kahlenberg's simulations; and to change now, to have a witness put before the Court of somebody else's simulations 12 that he cannot sponsor, would be inappropriate. 13 And I would refer to the deposition we took of 14 15 Professor Arcidiacono, and we asked him the specific question: "And I take it you're not planning to opine as to whether or 16 17 not the simulations that Mr. Kahlenberg had you and your team perform were the right ones? 18 "Correct. 19 20 "I take it that you're not opining as to the results of the 21 simulations? 2.2. "Correct." 23 So having heard from the witness that he is not opining to 24 Mr. Kahlenberg's simulations, I don't understand why we're hearing that here for the first time in court today.

MR. MCCARTHY: Your Honor, this is not the first time they would have heard about this, in court, and he is not opining on Mr. Kahlenberg's simulations. Mr. Kahlenberg actually disclosed in his expert reports that he relied upon Professor Arcidiacono to actually build the simulations that Mr. Kahlenberg opined on.

Mr. Kahlenberg is not an economist. He doesn't do econometric modeling, but in his line of work when he does his work on race-neutral alternatives, he typically relies on someone like Professor Arcidiacono to actually construct his models. They do it at his direction. So he's ultimately responsible for the opinions there, but just like he did here, he does in his outside work, he relies on someone else. Again, this was disclosed in Mr. Kahlenberg's reports.

MR. FITZGERALD: Your Honor, it was disclosed that Mr. Kahlenberg's simulations were produced to us in discovery. We found at the deposition when we handed him his work papers he had never seen them before. Having made clear that we understood Professor Arcidiacono is offering the modeling and only the modeling and made clear in his reports that he was offering as to those issues, his reports do not discuss how he created the work product for Mr. Kahlenberg. Mr. Kahlenberg says, "I deferred to him." We don't think that's a proper way to sponsor a model.

An expert can't just say, "I don't understand the subject."

Somebody else who hasn't given us discovery of what they've done then gets to take the stand and sponsor the model for him?

Mr. Kahlenberg needs to own his own work, and this is very clear. And, you know, the person who decided which coefficients to raise in the models was Mr. Kahlenberg.

Mr. Kahlenberg's simulations should be justified by, sponsored by Mr. Kahlenberg; and he should defend them, not another witness.

MR. MCCARTHY: Your Honor, again, two things. One is, as I mentioned before, it was disclosed in Mr. Kahlenberg's reports that Mr. -- that Professor Arcidiacono actually built those simulations at Mr. Kahlenberg's direction. So counsel for UNC had ample opportunity to ask Professor Arcidiacono at his deposition how he constructed those models for Mr. Kahlenberg.

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On top of that, if this were something that UNC wanted to, you know, prevent any testimony on at all, it should have been the subject of a motion in limine, and that deadline has come and gone a while ago.

Last, again, Professor Arcidiacono is not going to offer any opinions on the simulations that Mr. Kahlenberg did. This is just background, consistent with what Mr. Kahlenberg disclosed in his expert reports, to explain that Professor Arcidiacono built the model at Mr. Kahlenberg's direction. That's all.

It's entirely appropriate, fully disclosed. They had an 2 opportunity to object if they wanted to before all of this, and 3 they didn't do it. The testimony here that we plan to offer, 4 very short, very simple, just about the basics of 5 Mr. Kahlenberg giving Professor Arcidiacono direction about how to construct the models, and that's it. It's very short. 6 7 We'll be done with it quickly. 8 MR. FITZGERALD: Your Honor, if I can have one last 9 word? We shouldn't have to make a motion in limine to hold a 10 witness to his commitment at a deposition that he is not 11 offering testimony on topic. Once we heard that 12 Professor Arcidiacono did not disclose in his reports how he went about Kahlenberg's work and said he's not offering an 13 opinion, we're done asking him questions. 14 15 Now to suddenly say, well, if you wanted to keep him from testifying in a way he told us he would not testify, we had to 16 17 file a motion in limine, that's not the case. He gave reports about his work on the modeling, not the simulations. He said 18 he wasn't going to testify about Mr. Kahlenberg's simulations, 19 20 and now here he is trying to do so. 21 THE COURT: Sustained. I'm not going to allow it. 2.2 MR. MCCARTHY: So, Your Honor, just so I understand, 23 Professor Arcidiacono is not going to offer any opinions at all about that. 24

I understood that.

THE COURT:

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MR. MCCARTHY: Okay. Am I permitted to ask him 1 2 whether or not Mr. Kahlenberg gave him high-level direction in 3 constructing those models? 4 THE COURT: You can ask that question, but you can't 5 go further than that. 6 MR. MCCARTHY: Okay. 7 THE COURT: All right. You can ask that question. 8 MR. MCCARTHY: That's fine. Thank you, Your Honor. 9 appreciate the clarification. 10 (By Mr. McCarthy) Did Mr. Kahlenberg give you high-level direction about how to construct the models you did for his 11 simulations? 12 A. He did. 13 And did he give you high-level instruction about how to 14 construct simulations off of Professor Hoxby's models? 15 A. He did. 16 17 Does your logit model take into account every factor that UNC considers in making admissions decisions? 18 It does, but some of those are unobservables. So we're 19 20 going to be able to be predicting UNC's admissions with their 21 observables, but there are certainly unobservables that affect 2.2 the UNC admissions decision. 23 Q. Are your models reliable, notwithstanding the fact that there are some variables that you don't have, these so-called 24 unobservables?

- 1 A. Yes. In fact, all of empirical work in economics is
- 2 predicated in some part by having unobservables.
- 3 | Q. Are your models able to predict UNC admissions with a high
- 4 | level of accuracy, notwithstanding there are some
- 5 unobservables?
- 6 A. A quite high level of accuracy, better than what I've just
- 7 | about seen almost anyplace else.
- 8 Q. Thank you. We'll come back to the accuracy of your models
- 9 | later.
- 10 You mentioned the quality of the data. Is there data here
- 11 | that you normally don't have or wouldn't have?
- 12 A. Yeah, you normally wouldn't have UNC's ratings primarily.
- 13 And then having, you know, six full years of admissions data is
- 14 | great. Typically admissions data is very hard to get your
- 15 hands on.
- 16 | Q. So in terms of UNC's ratings, those, in a normal setting,
- 17 | would be unobservables, correct?
- 18 A. That's correct.
- 19 Q. But they're observables here?
- 20 A. That's correct.
- 21  $\parallel$  Q. Because they were produced and in the data and you used
- 22 | them?
- 23 A. That's right.
- 24 Q. Are you aware that Professor Hoxby criticizes you for
- 25 | including UNC's ratings in your model?

A. I am.

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- 2 Q. And what is her position on that?
- 4 | interested in seeing how formulaic a process is, she objects to

Well, it's sort of two-fold. One is that when you're

- 5 the use of subjective factors, and the ratings do have a
- 6 subjective component to them. And then there's another aspect
- 7 | with regard to how race might influence those ratings.
- 8 | Q. And is it okay to include subjective factors in your model?
- 9 A. It's most certainly okay to include subjective factors in
- 10 your model.
- 11 And then with regard to how race influences those ratings,
- 12 | it really hinges on the question that you're asking. So when
- 13 | we're thinking about how formulaic UNC's admissions are, you
- 14 need to be taking into account the stuff that you have
- 15 available to you, regardless of whether race is influencing it.
- 16 Now, in my model, I'm typically controlling for the ratings
- 17 | all the time. Even though there is one rating where I do
- 18 | believe race influences it, which is the personal rating, I
- 19 kept it in there to be conservative. And I will show you a
- 20 model that doesn't have the personal rating in it, and that
- 21 | will reveal that racial preferences are even larger when it was
- 22 | removed.
- 23 But the reality was I just didn't want to have a fight
- 24 about something that matters so little in terms of the context
- 25 of the magnitude of the racial preferences. What you see is

that most of the action on racial preferences is not operating 2 through the ratings for UNC. 3 Q. I want to get back just briefly to the idea there's some 4 subjective factors among the variables UNC produced. 5 THE COURT: Let me ask you: How much longer are you 6 with this witness? 7 MR. MCCARTHY: I was actually going to suggest I think 8 maybe after this question that we take a break because I'm at a 9 logical stopping point after this. 10 THE COURT: That would be great. Go ahead. MR. MCCARTHY: As long as I get it out, it will be 11 12 one, I promise, Your Honor. It might take more than one. 1.3 We'll see. THE WITNESS: No more equations. 14 15 Q. (By Mr. McCarthy) Not for a little while. Getting back to the subjectivity of some of the factors 16 that UNC considers in admissions, do economists often conduct 17 modeling that involves subjective factors? 18 A. All the time. 19 20 MR. MCCARTHY: We can stop there, Your Honor. 21 THE COURT: All right. Let us take a 15-minute 2.2. recess. We will resume at 3:30. 23 (An afternoon recess was taken from 3:15 p.m. until 3:30 p.m.; all parties present.) 24 25 THE COURT: Yes, sir.

1 MR. MCCARTHY: Thank you, Your Honor.

THE COURT: Uh-huh.

Q. (By Mr. McCarthy) Professor Arcidiacono, when we broke, we were talking about -- I'm sorry. Professor Arcidiacono, when we broke, we were talking about what a logit model is and what it does.

Now that we've talked about that, how do you go about building such a model?

- A. So when we were looking at the summary statistics there, we were sort of seeing some patterns. So those are the types of things that you might want to have in your model. It's also
- 12 based on, you know, my previous experience in doing models in
- 13 higher education, but also reading, you know, the guidelines
- 14 for UNC's readers and the deposition testimony and thinking

about what factors that are in the data I can incorporate.

- 16 Q. And this is all in trying to determine the appropriate
- 17 | variables for the model?
- 18 A. That's correct.
- 19 Q. Did you prepare a slide to explain the types of variables
- 20 | in your model?
- 21 A. I did.
- 22 | Q. What generally does this slide show?
- 23 A. This slide shows the controls I used for my opening report
- 24 | model.

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25 Q. Now, before you get into all the controls and variables,

- why is it that there are seven models listed here?
- 2 A. So what you're trying to do here is see what happens as
- 3 you're adding additional variables to the model, and that can
- 4 give you a hint as to what's likely to happen if you had even
- 5 more data.
- 6 So, as an example, suppose that you saw for a particular
- 7 group you kept adding controls, and the coefficient kept
- 8 getting higher and higher. Then all that's suggestive that if
- 9 you keep adding controls, it's just going to keep getting
- 10 | higher, not smaller. If, on the other hand, you start off with
- 11 a really big coefficient and then you add controls and keep
- 12 getting closer and closer to zero, then that might make you
- 13 suspicious that having even better controls it would go all the
- 14 way to zero and not be important.
- 15 Q. Is it common practice in econometric modeling to have
- 16 several iterations of models like this where you add variables
- 17 | to them?
- 18 | A. It is.
- 19 Q. And when you say "controls," do you mean -- is it what
- 20 people often mean as variables?
- 21 | A. That's right. Those are all the things that are located in
- 22 the first column of this slide.
- 23 Q. So can you explain to us what controls or variables are in
- 24 | those models?
- 25 A. Well, we're going to start off with just some very simple

controls: Your race, whether or not you're female, whether you applied early or regular decision. That's going to turn out to matter. And I should also say that these models are estimated both in state and out of state separately, whether or not you're an alum of UNC.

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And then things that are somewhat related to disadvantage status, such as whether you're a first-generation college student, whether you applied for waiver of the application fee. And then, you know, some people we don't actually have that information on whether they had a fee waiver, so you include a control for a missing.

And then you have controls for which admission cycle because, you know, maybe -- UNC may be becoming more competitive over time as more and more people apply. So that's going to take that into account. So that sort of makes up Model 1. That's a baseline.

And then in Model 2, we're going to add a lot of things that are related to academic measures, and so this is going to include things like your SAT scores. And I do math and verbal separately, allowing for the effects to be different across those two. I should also mention that not everyone has an SAT math score. You may have an ACT score, so I'm going to convert those ACT scores into math scores — into SAT scores.

But even then there will still be some people who have neither, and so here, for that small set of people, I'm also

going to include an indicator where they are missing that SAT score. And you'll notice that that variable there says missing 2 3 SAT times race/ethnicity, and so what I'm doing there is I'm 4 having separate variables for each of those. There's a good 5 reason for doing that, and that is effectively, if I just had one variable for that, just missing SAT, what that would mean 6 7 is the model would say, hey, what SAT score can sort of rationalize the admissions decisions for people who are missing 8 SAT. 9

By doing it interactive with race, then it's saying what SAT score can rationalize the admissions decisions of African Americans, what SAT score can rationalize the admissions decisions for Hispanics and so on. And that's actually somewhat important here because it is the case that the test scores are different across different racial groups.

There are different ways to sort of view these missing SAT scores. It could be it just happened to not be recorded in the data, or there could be that they came up with the idea that they truly were missing and they would come up with an idea of what they might be, given the rest of the information there.

But I'm not posing anything here. I'm just allowing the model to tell me what those implied SAT scores would be for those who are missing it and allowing it to be different across races.

Maybe a long answer for that, but --

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Q. Let's do this. What's -- I think you've identified several

- of the controls in Model 2.
- What is the big difference between what's in Model 2 and what's in Model 3?
- 4 A. Well, in Model 3, I'm adding to that UNC's ratings. So
- 5 | Model 2 is just based on I guess what Professor Hoxby would say
- 6 were the nonformulaic-type stuff -- the formulaic-type stuff,
- 7 and then I'm adding UNC's ratings in Model 3.
- 8 Q. And what about in Model 4?
- 9 A. In Model 4, I'm sort of doing two things. One, I'm
- 10 accounting for your intended college major, and then I'm
- 11 also -- and I'm actually also accounting -- let me just --
- 12 | yeah, let me just say that. And then I'm also looking at
- 13 | allowing the effects of race to be different along two
- 14 | dimensions: One, differences between men and women; and, two,
- 15 with regard to first-generation college status.
- 16 Q. Let's stop there for a minute.
- MR. MCCARTHY: Mr. Lawrence, can you highlight where
- 18 | it says "first-generation interacted with race/ethnicity"?
- 19 | There we go.
- 20 Q. (By Mr. McCarthy) So that's one of the variables,
- 21 | Professor Arcidiacono, you said is in Model 4, correct?
- 22 A. That's correct.
- 23 Q. Okay. And I want to make sure I understand this. Why do
- 24 you have variables like this where it says "first-generation"
- 25 | interacted with race/ethnicity"?

- 1 A. So in this case, it's to allow for preferences to operate
- 2 differently for first-generation college students dependent
- 3 upon your race. And so what I found in my past research and
- 4 what I also found in the Harvard case is that things related to
- 5 disadvantaged status, you'll get a bump for it. You also get a
- 6 bump for being African American, but you may not get the bump
- 7 | for being disadvantaged if you're black. And that -- that's
- 8 been something I've noticed in my work on affirmative action,
- 9 | that it -- the beneficiaries seem to be more advantaged African
- 10 | Americans than disadvantaged ones.
- 11 | Q. So is the idea behind an interaction variable that it
- 12 | allows one variable to act differently over another variable?
- 13 A. That's correct.
- 14 Q. Did you prepare a demonstrative to help you explain how to
- 15 | interpret coefficients that include interactions?
- 16 | A. I did.
- 17 | Q. Now, first, you mentioned coefficients before. At a high
- 18 | level, what do coefficients mean again?
- 19 A. Coefficients give the weight of that particular variable in
- 20 the process.
- 21 | Q. And so a higher coefficient means what?
- 22 | A. Would be higher weight if they're sort of scaled the same
- 23 | way.
- 24 Q. So what are the coefficients here on this slide?
- 25  $\|$  A. Those would be the letters A, F, and X.

- Q. And as a starting point, what are these coefficients in comparison to?
- $3 \parallel A$ . So it's always going to be relative to a baseline group.
- 4 So in this case, the baseline group for race will be white
- 5 | students. So do you see that African Americans get a bump or a
- 6 penalty relative to white students. That would be the
- 7 | Coefficient A. Similarly, for Coefficient F -- this is for
- 8 | first-generation college -- the baseline group would be those
- 9 who are not first-generation college; is there a bump or a
- 10 penalty for first-generation college students.
- 11 0. And then what does the X coefficient mean?
- 12 A. Well, the X coefficient gives you the effect on the
- 13 | interaction term. So does the bump, for example, for
- 14 | first-generation college students differ depending on whether
- 15 you're African American or not.
- 16  $\parallel$  Q. So let's highlight that first equation there. How do we
- 17 get preference for FGC African American applicants relative to
- 18 | FGC white applicants when we're talking about your
- 19 | coefficients?
- 20  $\parallel$  A. So the way we think about this is that FGC African
- 21 | Americans will get the bump for being African American, which
- 22 | is A. They also get the bump for being first-generation
- 23 college, which is F. But because this is relative to
- 24 | first-generation college whites, first-generation college
- 25 whites also get the bump up. So that part cancels. That's why

- ARCIDIACONO DIRECT 182 there's a space there between the A and the plus sign. Now, this is where the interaction term kicks in because for African 2 3 American first-generation college, you get the additional bump 4 or penalty X. 5 Q. And now what about the second equation? If you have the coefficients that you identified here, how would you compute 6 7 the preference for first-generation college African American applicants relative to non-first-generation college African 8 9 American applicants? 10 A. So in this case, first-generation African Americans and not 11 first-generation African Americans would both get the bump A, so that part cancels. That's why there's a space there. 12
- 1.3 But then the first-generation college African American

would get the bump for being first-generation college, plus they'll get the bump for being African American first-generation college, which is X.

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- Q. And then last, let's look at the third one. So if you have these coefficients and you were trying to calculate and compute any preference that FGC, first-generation college, that is, African Americans might have relative to non-first-generation college white applicants, how would you do that?
- baseline across, so all of theirs are set to zero for this example. So then what you're doing is you're adding up A plus

A. Well, the non-first-generation white applicants, that's the

F plus X: The bump for being African American, or penalty, the

- bump or penalty for being first-generation college, and then
  the interaction bump or penalty for being both African American
  and first-generation college. So A plus F plus X.
- 4 Q. Thank you.
- 5 MR. MCCARTHY: Can we go back to Slide 21 for just a 6 minute?
- Q. (By Mr. McCarthy) So now that you've explained what those interaction variables are -- and I think you had talked about Model 4 -- can you tell us what variables are in Models 5, 6,
- 10 and 7?
- 11 A. Yes. So Model 5 actually has the same variables as Model
- 12 4. There's a check on the box for high schools with minimum
- 13 number of applications and admits. That's actually referring
- 14 | to the data.
- 15 | Q. So that's not a variable?
- 16 A. So Model 5 -- yeah, it's not a variable. Model 5 is best
- 17 understood in the context of Model 6.
- 18 | Q. So let's talk about Model 6 then.
- 19 A. So what Model 6 does is it adds to the model high school
- $20 \parallel \text{fixed effects}$ , and so what that would take into account is that
- 21 some high schools may have harsher grade distributions or
- 22 | better -- or seen by UNC as better preparing the students for
- 23 college, more rigorous high schools or something like that.
- 24 And so this is putting in a variable for every high school that
- 25 | we see.

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The issue with that is that there might be some high schools where nobody gets in or some high schools that send very few applications, and in that case, you're not really picking up great information on those schools. So what we're going to do is restrict — when we're doing high school fixed effects, we're going to restrict it to high schools that have a certain number of applicants and a certain number of acceptances. When we estimate Model 6, the coefficients will change relative to Model 4 because we have high school fixed effects in there.

But there's another reason that they could change, which is that we've thrown out people from those particular high schools; and so what Model 5 does is it says let's take the same data we used in Model 6, just slightly smaller group, and estimate Model 4. And in that way, we can see how much of the change in coefficients is driven by the change in the data because we've thrown out students from those high schools — that would be comparing Model 4 to Model 5 — and then how much is driven by accounting for the high school fixed effects, which would be moving from Model 5 to Model 6.

- Q. Thank you. And then what did you then change or add when you went to Model 7?
- A. With Model 7, we added census track fixed effects, which,
  again, that's putting really strong demands on the data because
  now you have to have multiple applicants and admits from

- 1 different census tracks. And this is really more designed to
- 2 see what's happening to the coefficient on race to see, well,
- 3 | if we added additional information, is that moving racial
- 4 preferences up or down. My preferred model is actually
- 5 Model 4.
- 6 Q. When you say it's your preferred model, is that the model
- 7 that you highlight throughout your analysis?
- 8 A. That's the one that -- if I'm only showing results for one
- 9 model, that's it, you know, and that's going to be a lot of
- 10 what all my examples are going to use in terms of figuring out
- 11 the effects of race.
- 12 Q. At some point did you update your models to include
- 13 | additional variables?
- 14 | A. I did.
- 15 Q. Did you prepare a slide that shows that?
- 16 A. I did.
- 17  $\parallel$  Q. And is that what this slide shows?
- 18 | A. It is.
- 19 Q. What variables, then, are there that you added to your
- 20 models?
- 21 A. So the process of the way these reports worked is both
- 22 | myself and Professor Hoxby submitted simultaneous reports and,
- 23 in reading through her first report, there were some variables
- 24 | that I thought that would be fine to add to my model, and so
- 25 those are what's highlighted in red. So these are sort of the

- 1 variables that Professor Hoxby proposed that were not already
- 2 | incorporated into my model. They don't matter a lot, but I
- 3 think it's completely reasonable to include them, and so I did.
- $4 \parallel Q$ . So I want to talk a little bit more about coefficients.
- 5 A. Well, I would just like to point out what the variables
- 6 are --
- $7 \mid Q$ . Oh, sure.
- 8 A. -- which this is whether you're a child of a faculty member
- 9 at UNC and then your rank within applicants from the same high
- 10 school. So you might have a set of applicants from the same
- 11 | high school and your rank within those and then whether you met
- 12 UNC's minimum admission requirements.
- 13 Q. Thanks for explaining that.
- 14 Now I'd like to talk a little bit about your coefficients.
- 15 You've mentioned them a couple times. Do you have a slide --
- 16 did you prepare a slide that shows some of the coefficients for
- 17 | your in-state models?
- 18 | A. I did.
- 19  $\|Q$ . And at a general level, what are you showing in this slide?
- 20 A. I'm showing the logit estimates of my in-state admissions
- 21 models. I'm just showing the race coefficients here.
- 22 | Q. And so what we're looking at, these are the coefficients in
- 23 these models? I'm sorry. These are the coefficients on those
- 24 | variables in those models?
- 25 A. Yes, for the first four models.

- 1 Q. Okay. So up at the top there where it says "Spec 1," "Spec
- $2 \parallel 2$ , "Spec 3," "Spec 4," what does that mean?
- 3 A. Model 1, Model 2, Model 3, Model 4.
- $4 \parallel Q$ . And this is for that updated Model 4 after you added those
- 5 | variables?
- 6 A. That's correct.
- $7 \parallel Q$ . So what do you show in the first row there?
- 8 A. So the first row shows the coefficients on African American
- 9 for each of my models, and what you'll notice is it starts out
- 10 negative. This is when we just have those baseline controls of
- 11 gender, whether you were first-generation college, fee waiver
- 12 and such. And that's sort of consistent with what we saw for
- 13 in-state admissions. You recall that admissions for whites and
- 14 | Asian Americans were over 50 percent, but for African
- 15 Americans, it was around 30 percent. So it's consistent with
- 16 | having a negative coefficient there.
- 17 When we go to Model 2 and account for those academic
- 18 | variables, the coefficient switches sign, becomes fairly large.
- 19 1.8 is a pretty big effect in logit models and that -- you
- 20 know, that's strongly significant. As we add UNC's ratings,
- 21 | the coefficient increases further; and then when we put in
- 22 | those interactions, you can see the coefficient increases even
- 23 | further.
- 24 Now, that's -- that coefficient is interpreted differently
- 25 | in Specification 4 because you have the interactions. What

- 1 this coefficient in Specification 4 represents is the bump
- 2 | African Americans receive for males who are not
- 3 | first-generation college. To get it for females and for
- 4 | first-generation college, you have to add that to the
- 5 coefficients that are presented further down.
- 6  $\parallel$  Q. What about Models 5 through 7, which are not shown here?
- 7 A. So Model 5, you recall, is just like Model 4, except on a
- 8 | slightly smaller data set; and that doesn't really matter that
- 9 | much in terms of differences in the coefficients.
- But for Models 6 and 7, consistent with the patterns that
- 11 we see in 1 through 4, adding high school fixed effects or
- 12 adding the census tracks leads to higher coefficients on
- 13 | African American.
- 14 | Q. Let's take a look at the second row. What do the
- 15 coefficients in that second row show?
- 16 A. So this is showing the coefficient on Hispanics, again for
- 17 | my first four in-state models, and again you can see a similar
- 18 | pattern to what was happening to African Americans, though
- 19 substantially muted. So we start off with a small negative
- 20 coefficient, when we don't have any -- when we have very
- 21 | limited controls, and that's consistent with Hispanics in the
- 22 | in state having lower admissions rates.
- 23 But again, once we account for differences in academic
- 24 | background through test scores and grades and such, the
- 25 coefficient goes substantially up. It's now large and

- 1 | positive. And if you add UNC's ratings, it becomes even more
- 2 positive. And then again, the last one is a little bit
- 3 different because now the coefficient is for male, not
- 4 | first-generation college Hispanics.
- 5 | Q. And that's because of the presence of the interaction
- 6 | variables you mentioned?
- 7 A. That's right.
- 8 | Q. And we'll talk about those in just a minute. Let's look at
- 9 the next two rows. What do you see there in the Asian American
- 10 | and the female coefficients?
- 11 A. They're pretty small in magnitude. That's probably the
- 12 | biggest takeaway from that. They're not going to matter that
- 13 | much in terms of your probability of admission.
- 14 | Q. All right. Let's go down a couple rows to where it says
- 15 | "alum." I take it that means legacy?
- 16 | A. That's right. And so here you see a preference for legacy
- 17 | students at -- you know, it's about a little less than half of
- 18 the bump for first-generation college.
- 19 Q. Now, I want to look just below that where it says "female"
- 20 | times race" and then below that where it says "FGC times race."
- 21 | These are the interaction variables we discussed, right?
- 22 A. That's right.
- 23 Q. And what do these interaction -- what do the coefficients
- 24 on these interaction terms reveal?
- 25 A. So for female times African American, you get a negative

coefficient that's about the size and similar magnitude to the legacy bump we were just discussing. So African American women 2 3 don't get as big of a racial bump as African American men in 4 state, and you can see that a little bit way back on the 5 summary statistics for in state. I was going to mention that. There's a big gender gap in terms of who goes on to 6 7 college. So I think generally it's like 55-45 more women than 8 men, but that gender gap is much more pronounced for African 9 Americans. So I believe it was 70 percent of in-state 10 admits -- 70 percent of African American in-state admits were 11 female. So they're not getting the full African American bump here. They're getting still a substantial bump because you 12 1.3 would add that negative .469 to the 3.5. That's still going to give you, you know, a bump of three, which is large, but it's 14 15 not as big as what their male counterparts would get. Q. Let's look down at the last row. What is the last row down 16 17 there? I also wanted to mention on the first-generation college 18 cross-race because I think that's a key coefficient here. 19 20 Q. Go ahead. Let's do that. 21 And what you see for African Americans -- this is what I 22 was mentioning before -- if you're first -- this is sort of the 23 measure of disadvantage we're working with here. It seems like

that's where the big bump is. The coefficient is negative 1.

That almost counterbalances the effect that you get if you're

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- 1 white first-generation college, which is the 1.168. So the way
- 2 | that works is that if you're African American, you get a large
- 3 | bump. If you're first generation, you get a bump that's about
- 4 | a third of that; but if you're African American and
- 5 | first-generation college, you don't get the first-generation
- 6 college bump.
- $7 \parallel Q$ . And this is -- this is what the slide a few slides ago
- 8 showed with the calculations with the A and the F and the X,
- 9 | correct?
- 10 A. Exactly.
- 11 | Q. So then let's go ahead and look down at the last row. The
- 12 | last row says "pseudo R-squared." What does that -- what does
- 13 the data in that row show?
- 14  $\parallel$  A. The pseudo R-squared is trying to get a measure of fit for
- 15 the model. It has a counterpart for what are called linear
- 16 models. So this would be your normal regressions people
- 17 | normally do. That's what the R-squared is. The pseudo
- 18 | R-squared is trying to find a counterpart to that. But what it
- 19 really does is it just says, you know, if it's a higher number,
- 20 | it fits the data better. You can't really interpret the number
- 21 | itself in the same way and what --
- 22 Q. When you say it's a "measure of fit," does that mean about
- 23 how well that the model fits the data?
- 24 A. Exactly. And what -- the classic citation on this says
- 25 pseudo R-squared .2 to .4 is an excellent fit of the data.

- 1 We're getting much higher values here. Getting a pseudo
- 2 R-squared, you know, above .7, that hard -- that's not
- 3 something you normally see in models of this type.
- 4 Q. Okay. Let's shift to out of state. Did you prepare a
- $5 \parallel$  slide that shows similar coefficients for your out-of-state
- 6 | models?
- 7 | A. I did.
- 8 Q. And what did the data show in this slide?
- 9 A. They're going to show the logit estimates of my
- 10 out-of-state models, focusing in on the coefficients on race.
- 11 Q. So let's look at the first row, just like we did for the
- 12 in-state applicants. And what does that first row show in
- 13 terms of the coefficients on African American?
- 14 A. So that shows in the first model sort of a fairly large
- 15 positive number and that -- keep in mind this is relative to
- 16 whites. So if you recall, it was like 10 percent of white out
- 17 | of states were admitted and about 16 percent of African
- 18 American out of states were admitted and about 16 percent of
- 19 Asian Americans are admits. Actually, that coefficient on
- 20 African American, it's sort of a somewhat similar size to what
- 21 | it is for Asian American in that first column.
- 22 Now, once you add in the academic variables, those two
- 23 coefficients diverge dramatically. Okay. So now the one for
- 24 Asian American shrinks. You know, that's a fairly small number
- 25 there. But the one for African American goes up to 4 point --

- over 4.7. That is a really big number for a logit model, and we'll see how that impacts things as we go through.
- Then when you add in the readings variables, the

  coefficient goes up even more. And then finally in the last

  column, this is where we have the heterogeneity analysis. This

  where we allow race to be different in its effects for
- Q. Can I stop you there for a second? Heterogeneity effects,
  I don't think we've used that phrase yet today.
- 10 A. Sorry. That is the interaction terms.

female and first-generation college.

11 Q. Thank you.

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- Okay. So go ahead. You were talking about Model 4 and the
  African American coefficient there and how it's affected by the
  interaction terms.
- 15 A. That's right. So -- and really, in contrast, what we saw
  16 in state, you don't see that African American female penalty
  17 there, and the gender gaps are not as large out of state as
- 18 they are in state.
- Q. And overall when you look at this first row for out-of-state admissions, how does that compare with the
- 22 A. They're much higher.
- 23 Q. Let's look at the second row.

coefficients for in state?

- A. So the second row shows the same results for Hispanics; and
- 25 if you recall, Hispanics actually had the highest out-of-state

- 1 | admit rate, and so we're controlling for hardly anything.
- 2 | That's going to give you that effect, that .98. And again,
- 3 once you add academic variables, that coefficient goes
- 4 substantially higher, not as high as for African Americans, but
- 5 still a substantial effect.
- 6 Then when you add UNC's ratings, it goes up even higher,
- 7 | and then it's basically the same in Specification 4 where you
- 8 | have to interpret it a little bit differently because this is
- 9 not first-generation college male, Hispanic.
- 10 | Q. And that's because of the interaction variables that are in
- 11 | that fourth model?
- 12 A. That's correct.
- 13 Q. Let's look again at the alum or legacy status row like we
- 14 did in the in-state applicant pool. What do you see there?
- 15 A. So here you start off with the big effect, and again that
- 16 goes up when you're adding the controls, and this is to the
- 17 point where it lies in between the bump that you get for being
- 18 African American and the bump you get for being Hispanic.
- 19  $\parallel$  Q. So is this different than what we saw for the in-state
- 20 | applicants?
- 21 | A. Yes. For in state the coefficient, I think, was about a
- 22 | tenth of the size.
- 23 Q. Let's look at the FGC row just above that. What do the
- 24 coefficients there show for first-generation college
- 25 | applicants?

A. So the first one is negative, and that's going to be consistent with the fact the first-generation college kids are likely coming from places where they're not going to have as strong of an academic background, not as good of schools in those areas. And then you see the flip when you move to Specification 2 when you add the academic variables, and now you see a bump, and that bump increases when you add in UNC's ratings. So we're moving from .91 to basically 1.37.

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- Now, when you get to the last specification, this is where the interactions matter. So now you're up to 1.9 basically, which is larger than what we saw in state. And then when you look at those interactions for African Americans, they don't get the full bump again. They're going to get some of a bump here in contrast to in state where it just basically canceled out. To get the -- you have to add the two coefficients together.
- Q. So if you wanted to figure out the coefficient for an African American FGC applicant, how would you do that again?
- 19 A. You would add the 1.889 to the negative 1.343 under that 20 first-generation college African American.
- Q. And that would tell you the preference or bump that an
  African American applicant would get for being first-generation
  college status?
- A. That's right, relative to an African American who is not first-generation college.

- Q. Thank you.
- 2 So now we've talked about some of the output of your model
- 3 | in the form of these coefficients that are indicators of what
- 4 | factors drive admissions to some extent. Are there ways to
- 5 determine how well your models are able to match UNC's actual
- 6 admissions decisions?
- 7 A. There are.
- 8 Q. And what are some of those ways?
- 9  $\|$  A. Well, one of the ways is the pseudo R-squared.
- 10 Q. And that's the value at the bottom?
- 11 A. That's the value at the bottom, and those numbers are high.
- 12 Q. Who are those here for the out-of-state models?
- 13 A. So it gets all the way up to slightly less than .6. It's
- 14 | not quite as high as the in-state models, but still well
- 15 outside the excellent fit between .2 and .4.
- 16  $\parallel$  Q. Is there another way to measure the accuracy of your models
- 17 | in terms of --
- 18 A. Yes, you can calculate the accuracy.
- 19 Q. And how do you calculate the accuracy?
- 20 | A. So this is basically thinking about how well the
- 21 observables do at your forecasting the admissions decisions.
- 22 | Q. Again, I want to stop you real quick. The observables are
- 23 the variables that are actually in your model, right?
- 24  $\blacksquare$  A. The variables that are in my model.
- 25 Q. So when you're talking about figuring out how well those

- observables do, you mean with the variables in your model, how accurate does it predict admissions?
- 3 A. That's right. So if you recall, the variables had
- 4 coefficients on them. So what we're going to do is take those
- 5 coefficients and multiply them times the value of the variable
- 6 for each applicant, and then you combine them all together,
- 7 okay. And that's going to give you sort of the observable
- $8 \parallel \text{strength of the applicant.}$  So maybe they have high SAT score,
- 9 and there's a coefficient on that SAT score. Maybe they're an
- 10 | alum, and so then they get the alum coefficient. You put it
- 11 | all together, and that's going to give you what we're going to
- 12 call an admissions index, which is the strength of the
- 13 applicant based on the observables alone.
- 14 Q. So is this -- this admissions index, is this something that
- 15 captures the overall strength of an applicant based on all of
- 16 the variables that are in the model?
- 17 | A. That's right. And that strength is revealed by UNC's
- 18 actual admissions decisions. So I don't have to know, you
- 19 know, whether a particular reader thinks one rating is more
- 20 | important than another. That gets revealed by the admissions
- 21 decisions in the form of the coefficients.
- 22 | Q. Because those admission decisions are one of the things
- 23 | that's in the model?
- 24 A. Well, that's what we're trying -- that's like the deep end
- 25 of variable. That's what you're trying to explain is what the

- admissions decisions are.
- $2 \parallel Q$ . Do you have a slide that displays the accuracy of your
- 3 | in-state model?
- 4 A. Yes. I didn't quite finish explaining -- I got the
- 5 admissions index --
- $6 \parallel Q$ . Sorry.
- $7 \parallel A$ . -- but then I've got to tell you how we actually calculate
- 8 | the accuracy.
- 9 Q. Thank you.
- 10 A. So the way to think about calculating the accuracy is you
- 11 | take that admissions index and you sort it. So we're going to
- 12 take it from highest down to lowest. And then when we think
- 13 about the observables, we're going to fill up UNC's class,
- 14 | right. So we say, okay, how much in-state admits were there.
- 15 | Then let's take the people in state who have the highest
- 16 academic indices until we fill the class. That's going to tell
- 17 | you -- and we can see how often did we get it right just based
- 18 | on the observables. There's always going to be some
- 19 observables, so we are not going to get it perfectly, but how
- 20 close are we getting just with the observables.
- 21 | Q. So to make sure I understand, the output of your model
- 22 | allows the creation of this admissions index that is -- takes
- 23 | into account all of the variables in the model and is this sort
- 24 of sum total of the strength of that applicant?
- 25 A. That's correct.

- 1  $\parallel$  Q. And then you can rank those --
- 2 A. That's correct.
- $3 \parallel Q$ . -- from bottom to top?
- 4 A. That's correct.
- $5 \parallel Q$ . And then you can compare those to the actual admissions
- 6 decisions of those same applicants?
- $7 \parallel A$ . Yes. So we look at did I -- I predicted, using just your
- 8 | observables, that you got in. Did that applicant actually get
- 9 | in.
- 10 | Q. And that's how we figure out how accurate your model is?
- 11 A. That's right, how often did I get it right.
- 12 Q. Okay. So did you -- so in -- after you assessed the
- 13 accuracy of your models, did you actually produce a slide that
- 14 depicts those?
- 15 | A. I did.
- 16 Q. What did the data in this table show?
- 17 A. So this shows the accuracy for my preferred model for
- 18 | in-state admissions. My preferred model was Model 4, okay.
- 19 And it's going to show it separately for admits and for rejects
- 20 and then overall how well did I do.
- 21  $\mathbb{Q}$ . And just to clarify, this is with your updated Model 4,
- 22 | correct?
- 23 A. That's correct.
- 24 Q. So looking at this table, what is the accuracy of your
- 25 updated Model 4 for in-state applicants?

- A. So overall the accuracy is over 92 percent. And I get -for admits, just predicting the accuracy for people who were
  actually admitted, how often do I get it right, almost

  92 percent, 91.8 percent of the time. It's a little higher for
- 92 percent, 91.8 percent of the time. It's a little higher for rejects at 92 1/2 percent.
- Q. And then there's another row underneath that with some more data, and that row says "model with no controls." What does that represent or indicate?

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- A. Well, this is basically we're going to be filling the class you have to fill the class somehow without using characteristics at all, so initially this said random assignment. It means the same thing, you know, that fundamentally we're trying to fill up the class just with a set of students completely unrelated to their characteristics. So in that case, how well would you actually do. The benchmark is not zero here. You're not comparing 91.8 to 0. And, you know,
- this shouldn't be the benchmark either in terms of the model
  with no controls, but this will tell you how often you get it
  right just based on luck.
- 20 Q. So is that supposed -- meant to be a benchmark?
- A. Yes. And the reason we have that in here is it's always
  easier to predict the outcome that occurs more often. So you
  notice that the accuracy for rejects is slightly higher than
  the accuracy for admits. That's because more people are
  rejected than admitted. That doesn't look like that big of a

- 1 deal for in-state admissions, but for out-of-state admissions
- 2 | it's going to matter quite a bit because the admission rate is
- 3 so much lower out of state.
- $4 \parallel Q$ . Do you have any other ways of showing the accuracy --
- 5 | A. I do.
- 6 Q. -- of this model? Did you prepare a slide?
- 7 | A. I did.
- 8 Q. What does this figure depict?
- 9 A. So this figure shows the distribution of predicted admit
- 10 probabilities for in-state admits. So what a predicted
- 11 probability is is what is the model saying your probability of
- 12 | admission is, okay. We take all those observables. We figure
- 13 out what's -- what do we think your admissions probability is
- 14 | based on that. So on the X axis there, that is the predicted
- 15 probabilities. That's the scale.
- 16 Q. So "1" meaning a hundred percent?
- 17 | A. "1" meaning a hundred percent they were admitted.
- 18 | Q. And zero meaning zero -- a prediction of zero percent
- 19 chance of admission?
- 20 A. That's right.
- 21 | Q. Okay. So those are predicted probabilities of admission,
- 22 | and they're represented in decimals but convert to percentages?
- 23 A. That's right. What's happening here is you've got a whole
- 24 | bunch of these predicted probabilities for all these people and
- 25 (indiscernible) --

- (Court reporter requests clarification.)
- 2 A. You have predicted probabilities for every applicant, and
- 3 what this distribution shows is it smooths it a little bit
- 4 | because otherwise it would be a bunch of jagged edges.
- $5 \parallel Q$ . Professor, I just ask you to go a little bit slower to make
- 6 sure the court reporter gets your answers.
- 7 A. Sorry.
- 8 Q. That's okay. So we just talked about what's on the X axis
- 9 there. What is on the Y axis in that figure?
- 10 A. So the Y axis is the density, and that's -- all that's
- 11 | trying to do is represent how many people were sort of in these
- 12 particular ranges. So when the density is higher, that means
- 13 | there's more people with those predicted probabilities than
- 14 when it's lower.
- 15 Q. So then this U-shaped curve here, that's showing that there
- 16 | are very few applicants that have predicted probabilities of
- 17 | admission in the middle?
- 18 A. That's correct.
- 19 Q. Most of them --
- 20 A. As an economist, the nerd in me just loves this picture
- 21 | because that's not something you hardly ever see in models
- 22 where it would have such a nice U shape like this. The model
- 23 | is doing a great job of sort of splitting people up into either
- 24 you have a really high admit probability or a really low admit
- 25 probability.

- 1  $\|$ Q. And that's what's represented by the peaks on either side?
- 2 A. That's correct.
- 3  $\|Q$ . That there are -- the vast majority of applicants in the
- 4 model are predicted to either be -- have a very, very high
- 5 probability of admission or very, very low probability of
- 6 | admission?
- 7 A. Right. So that's what I mean by the admissions process
- 8 | being very formulaic for in-state applicants.
- 9 | Q. And are you able to tell whether those high predicted
- 10 admissions probabilities are applicants that were actually
- 11 | admitted or, conversely, actually rejected?
- 12 | A. I am.
- 13 Q. Did you prepare a slide that shows this?
- 14 | A. I did.
- 15 | Q. And what does this slide show?
- 16  $\parallel$  A. So this slide shows the distribution of predicted admit
- 17 | probabilities, but now conditional on being rejected or
- 18 admitted for these in-state applicants. So the X axis is
- 19 exactly the same as what we had before. There are actually two
- 20 Y axes here, one for rejects, which is in blue, and one for
- 21 | admits, which is in red; and then we're showing the densities
- 22 here.
- 23 Q. And so what does this figure say or show about the
- 24 predicted probabilities of those applicants who are actually
- 25 | admitted?

- 1 A. They are extremely high. That big peak, you know, close to
- 2 | "1" indicates we're predicting extremely high admit
- 3 probabilities for people who are actually admitted.
- 4 Now, you notice the red line goes all the way -- covers the
- 5 | whole span, so there are a few people that we miss. But
- 6 overall it predicts extremely well who those admits are.
- $7 \parallel Q$ . So to make sure I understand it, if I look at that red
- 8 | curve, what that's showing is that people who are predicted to
- 9 have a very high probability of admission in your model, by and
- 10 | large they're actually admitted?
- 11 A. That's correct. And overall, people are either predicted
- 12 | generally to have a very high probability of being admitted or
- 13 | a low probability of being admitted.
- 14  $\parallel$  Q. And that's what you showed on the last slide?
- 15 A. That's correct.
- 16  $\parallel$  Q. And do we see the similar -- a similar sort of result going
- 17 on the other way for the applicants for whom the model
- 18 | predicted high likelihood of rejection?
- 19 A. Exactly. You can see that the peak is really close to zero
- 20 there.
- 21 Q. This is the blue curve?
- 22 | A. This is the blue curve. The peak is really close to zero
- 23 | there. We're getting really high -- I'm sorry -- really low
- 24 | admit probabilities for the people who are actually rejected.
- 25 Q. And when we look on the bottom of the scale there, just to

- remember what we spoke about before, they're all very close to zero?
- 3 A. That's right.
- $4 \parallel Q$ . Which means they have a predicted probability -- it's very,
- 5 | very, very close to zero, and it turns out those people are --
- 6 A. Are actually rejected.
- $7 \parallel Q$ . Did you do a similar type of analysis regarding the
- 8 | accuracy of your preferred model, Model 4, for out-of-state
- 9 applicants?
- 10 A. I did.
- 11 | Q. And did you prepare a slide?
- 12 | A. I did.
- 13  $\|Q$ . What did the data on this slide show?
- 14 A. This shows the accuracy of my preferred model for
- 15 out-of-state admissions, broken out separately for admits and
- 16 | rejects and overall.
- 17  $\mathbb{Q}$ . So if we look at the first row there, what does the data in
- 18 | that row tell us?
- 19 A. That shows my preferred model -- again, let's keep in mind
- 20 | what we're doing here. When we're calculating accuracy, we're
- 21 | calculating your admissions index, which is basically taking
- 22 | all those coefficients and matching them with your
- 23 characteristics and ranking you, then saying, "Based on those
- 24 observed variables alone, I'm going to predict your
- 25 | admissions." I'm going to take the highest ones until I fill

- the class. Okay. I work my way down the list.
- Then you see how well that matches with what UNC actually
- 3 did. So what the preferred model shows here is that my
- 4 accuracy for admits, how well do I predict the admissions
- 5 decisions of admits, is a little over 75 percent. The accuracy
- 6 for rejects is 96 percent, and then the overall accuracy is
- 7 | 93 percent. And the reason it's so much closer to the accuracy
- 8 for rejects is because so many people are rejected, so we end
- 9 up weighting that part more.
- 10 Q. This is because, as you pointed out earlier, the
- 11 | out-of-state admission rate at UNC is about 13 1/2 percent?
- 12 A. Yeah. It's going to be 13.9 on the set that we're looking
- 13 at here.
- 14  $\parallel$  Q. So if we look down at that second row, this is what you're
- 15 | alluding to, right?
- 16 A. Exactly.
- 17  $\parallel$  Q. This is that model with no controls that you used as a
- 18 | benchmark last time, right?
- 19 A. That's right.
- 20 | Q. And what does that row tell us?
- 21 A. So that row tells you, you know, how well would you do
- 22 | without doing anything, you know, just filling the class, not
- 23 | really taking characteristics, you know, into account.
- 24 And to me, the real big point here is you could look at
- 25 that number for the 96.1 and say, "Wow. That's incredible."

- 1 | That's not the impressive number to me. It's the smaller
- 2 | number that's actually the impressive one, which is the
- 3 | 75 percent. It's easy to predict rejects because so many
- 4 people are rejected. It's much harder to predict admits
- 5 | because, you know, there's so few of them. An analogy would be
- 6 | it's a lot easier to predict who is not 7 feet tall than who is
- $7 \parallel 7$  feet tall.
- 8 | Q. Because there are so fewer number of people who are 7 feet
- 9 | tall?
- 10 A. Exactly.
- 11 | Q. Do you have any other ways of showing the predictive power
- 12 or accuracy of your out-of-state model?
- 13 | A. I do.
- 14  $\parallel$  Q. Did you do a similar analysis like you did for in state?
- 15 | A. I did.
- 16 Q. And did you prepare a slide showing that?
- 17 | A. I did.
- 18 Q. So what do these figures show in this slide?
- 19 A. So this is going to show the distribution of predicted
- 20 | admit probabilities conditional on being rejected or admitted
- 21 | for out-of-state applicants.
- $22 \parallel Q$ . So the idea, again, is for the applicants who your model
- 23 predicts a very high likelihood of admission, how do they
- 24 compare with the people that UNC actually admitted?
- 25 A. That's right. We calculate those predicted admissions

- probabilities from the model. They're probabilities precisely because there are some things that are unobserved. And I say, 2 3 well, how well does the model -- how high are those predicted 4 probabilities for people who are admitted versus people who are 5 rejected.
  - Q. And what does the figure illustrate overall about the predicted probabilities of those who are admitted?

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A. Well, what you see is, again, that sort of high spike -the high predicted admissions probabilities, but it's not as clean as what it was in state, and that's in part due to the fact that it's much harder to predict those admits out of state. So you do see that there's, you know, definitely people who are getting in who my model says had probabilities they shouldn't, of .2 or .4 or something like that, and that's by construction. It's much harder to predict those admits.

So I find this incredibly impressive how well it does. I find what's going on with the red line more impressive than what I find with the blue line. The blue line shows it for rejects. In there, you know, we're showing that for the vast, vast majority of rejects we're predicting fairly low admissions probabilities.

- 22 Q. What is your ultimate conclusion about the accuracy of your models?
- That they're incredibly high, much higher than what I'm 24 used to seeing, and that it indicates that the process is

- highly formulaic, especially in state.
- 2 Q. And I think you mentioned this before, but just to be
- 3 clear, part of the reason why you're able to get models that
- 4 | predict with such high accuracy is because of the quality of
- 5 the data?
- $6 \parallel A$ . Because of the quality of the data, yes. That is part of
- 7  $\parallel$  it. But as we'll see later on, even if you didn't use the
- 8 | ratings, you get something that's pretty accurate. UNC's
- 9 admissions decisions, it's -- for most of the applicants, it's
- 10 | fairly easy to predict.
- 11 | Q. You mentioned previously that the output of your logit
- 12 model enables you to quantify the effect of particular
- 13 | variables on admissions outcomes, correct?
- 14 A. Correct.
- 15 Q. Does that include quantifying the effect that race has on
- 16 | admissions outcomes?
- 17 | A. It does.
- 18 | Q. Did you employ different methods of
- 19 quantifying (indiscernible) --
- 20 (Court reporter requests clarification.)
- 21 MR. MCCARTHY: Sure. I'm sorry I went too fast there.
- 22 Q. (By Mr. McCarthy) Did you employ different methods of
- 23 quantifying the effect of UNC's racial preferences on its
- 24 | admissions decisions?
- 25 | A. I did.

- 1 Q. Did you prepare a slide that shows those methods that you
- 2 used to quantify the effect of UNC's racial preferences on
- 3 | admissions decisions?
- 4 | A. I did.
- $5 \parallel Q$ . What is shown on this slide?
- 6 A. So this slide shows the four ways that I'm going to talk
- 7 | about measuring the effects of race on the admissions
- 8 decisions --
- 9 Q. Can you talk a little -- I'm sorry. Go ahead.
- 10 | A. -- today.
- 11 | Q. Can you provide a brief description of those four methods?
- 12 A. Sure. So the transformational analysis is going to say we
- 13 can take someone who has a particular probability of being
- 14 | admitted, and I could do that for any probability you like, and
- 15 | just with the coefficients that I've shown you, we could do
- 16 those calculations now for any probability that you like and
- 17 | say -- suppose that probability was for a white male who was
- 18 | not first-generation college, maybe they have a 10 percent
- 19 chance of getting in, I can say what their probability of being
- 20 admitted would be if they were instead treated as an African
- 21 American or treated as an Hispanic.
- $22 \parallel Q$ . And your models allow you to isolate the effect of any one
- 23 | variable in that manner, correct?
- 24 A. Correct.
- 25 Q. And so that's how -- that's -- you're describing there

- 1 your -- the one listed at the top, your transformational
  2 analysis?
- 3 A. That's right.

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- 4 Q. Can you describe for us how your analysis works involving 5 the average marginal effect?
- A. Yes. So what the average marginal effect is going to do is now we're going to be looking at the full set of minority applicants. We want to say, if they were instead treated as white applicants, what would happen to their probabilities of admission.

So what we're going to do there is take the model, get their predicted admissions probabilities with and without the bump you get for race. Then when we look at the difference there, that gives you the marginal effect for each underrepresented minority applicant. And we can average those, and that gives you, you know, the average marginal effect.

Q. So that's the average marginal effect analysis.

Now can you give us a description of the third method you have on there, this -- what says "Admitted URMs Analysis"?

A. That's right. So here what we're doing is we say we know that this set of underrepresented minorities was admitted to UNC, and that tells you some information about those applicants because they had to be good enough to get in, given how UNC values particular characteristics. So we know that they've

been admitted under a regime with racial preferences.

So now let's take those racial preferences away. the probability they would be admitted now. These are the 2 3 people who would have actually benefited from racial 4 preferences. I mean, if you were an African American reject, 5 you may have gotten a bump, but it wasn't enough to get you in. This is the one where we're talking about people who were 6 7 actually admitted and saying, well, how would that change if they were instead treated as whites. 8 9 Q. Let's look at the fourth one there, capacity constraints 10 analysis. Can you give us a basic description of what that 11 analysis involves? A. Yes. So the fourth analysis is fundamentally different 12 from the first three in the following way: With the first 13 three, you're talking about an effect for a particular 14 15 applicant. You may be averaging it across all applicants, but we're looking at it from the perspective of an individual 16 17 applicant. If you actually got rid of racial preferences, now some of those students that we said wouldn't get in, right, and 18 19 that means that some spots get opened up. When we do capacity 20 constraints analysis, we're holding the number of admits in the 21 model fixed. So we're going to admit the same number of 22 people, just remove racial preferences and then see how the 23 composition of the class changes. 24 So what you mean by that is you look at for a given year, for example, however many students UNC actually admitted, and

- you're going to use the model in your analysis to figure out,
  okay, what would end up happening across that whole class if
  you took away racial preferences?
  - A. Exactly.

2.2.

5 Q. Thank you for those descriptions.

Let's -- having talked through at a high level what each one of those analyses involves, let's take a look at the results of your analysis.

So starting with the first one, that transformational analysis, did you prepare a slide discussing the methodology you used?

A. I did. And this is a slide that you know that I prepared the slide because there's a bunch of math on it here. But what we can do is we can consider someone who had a particular chance of being admitted, and the way that works is there's always going to be some set of observables that we can use that would correspond to a particular probability of admission.

Now, the way this works is that logit analysis has a particular expression, a mathematical expression for what that probability of admission is, and that's this exp of A over 1 plus exp of A. That gives you the probability of admission.

"A" is the admission index that we've been talking about. This is sort of how we're ranking all of those applicants based on their observables. So there's a particular value of A that would give you a 25 percent chance of getting in. It turns out

- that that value of A, if you did the math here, would be a little over a negative one. So how do we get --
- 3 Q. Can I stop you there for a minute?
- 4 A. Yeah.
- $5 \parallel Q$ . So is this working sort of in the opposite direction that
- 6 the model normally goes? Normally you have that index and it
- 7 produces a probability of admission.
- 8 | A. Yes.
- 9 Q. And now you're saying, "Okay, I can go the other way. The
- 10 math allows me to go the opposite direction. Just like
- 11 | addition and subtraction are opposites and they undo each
- 12 other, here you're saying, "I've got a percentage. I can work
- 13 back to find the index."
- 14 A. That's right. And I can do this for any percentage just
- 15 with the coefficients I've already shown you. So, you know, if
- 16 you wanted to do it for somebody who had a 1 percent chance of
- 17 | getting in, with the coefficients I've shown you, you could
- 18 back it out and calculate that formula.
- 19 Q. So please continue with your explanation of the
- 20 | methodology.
- 21 A. So what A here represents is the admissions index
- 22 | associated with a 25 percent chance of being admitted. Now,
- 23 what we can do is then give you the racial preference and see
- 24 how your admissions probability would change.
- 25 So, for example, if we considered an in-state white male

- 1 who is not first-generation college, we can just add to the
- 2 | admissions index the coefficients on African American from my
- 3 preferred in-state model. I'm sure you all remember this, but
- 4 | that number was 3.542. Okay. We can add that to the A and
- 5 | recalculate what their probability of admission would be. So
- 6  $\parallel$  if you plug it into that formula, you'll get .92. And so that
- 7 tells you that if you took that white male, not
- 8 | first-generation college applicant with a 25 percent chance of
- 9 | getting in and flipped on the racial preference for being
- 10 African American, your new probability of admission would be
- 11 | 92 percent.
- 12 Q. Thank you for the explanation.
- Did you prepare a slide that shows how this analysis worked
- 14 | out?
- 15 | A. I did.
- 16  $\parallel$  Q. So let's take a look here. At a high level, what is --
- 17 | what do the data in this slide show us?
- 18 A. So we're going to be looking at particular applicants of
- 19 particular probabilities of admission and saying what -- if we
- 20 changed their race, how would that affect their probability of
- 21 admission.
- 22 | Q. So if we start with -- let's say we start with the second
- 23 row, actually. So if we look at "Original Admit Probability"
- 24 where it says 25 percent, if we just look at that 25 percent,
- 25 | is that the one you were just talking about when you walked

- 1 | through your methodology?
- 2 | A. It is.
- 3 | Q. And you explained how you used the formula to figure out
- 4 | the index, figure out the new probability of admission, and you
- 5 | said it was 92. And that's shown in the second column right
- 6 | there?
- 7 A. That's correct.
- 8 | Q. Okay. And that's if you changed -- that hypothetical
- 9 applicant you started with who was a white male, not
- 10 | first-generation college, whose chance of admission was
- 11 25 percent, and if you changed just race to African American,
- 12 held all the other factors the same, then the probability of
- 13 | admission is 92 percent?
- 14 A. That's correct.
- 15 Q. What would happen with that same applicant if you switched
- 16 his race to Hispanic?
- 17 A. Then it would be almost 71 percent.
- 18 | Q. Let's go up a row then, and there -- what's the applicant
- 19 you're starting with?
- 20 | A. Now we're starting with someone who has a 10 percent chance
- 21 of admission. And here we can see that if we gave this
- 22 | applicant the bump associated with being African American, it
- 23 would go up to 79 percent; and if we did it for Hispanic, it
- 24 would go up to almost 45 percent.
- 25 | Q. And now, you carried out this analysis with different

- factors, different characteristics of the original applicant,
  right?
- 3 A. That's right.
- 4 | Q. Because, as we've seen, you showed various coefficients
- 5 before that show that there are differences between
- 6 first-generation college and not first-generation college, for
- 7 | example, differences between male and female, correct?
- 8 A. Correct.
- 9 Q. Okay. So let's go down to where it says white, female, not
- 10 | first-generation college. Can you tell us what the data in
- 11 your table show there?
- 12 A. Yes. So this is for white, female, not first-generation
- 13 | college who has a 10 percent chance of admission --
- 14 | characteristics that would give them a 10 percent chance of
- 15 admission based on their observables and says that they would
- 16 have a 70.6 percent chance of admission if they were instead
- 17 | treated as African American.
- 18 Now, that 70.6 percent chance is less than the 79.3 in the
- 19 | first row, and that's reflected in what I was saying when I was
- 20 describing the coefficients, that African American females get
- 21 less of a bump than African American males in state.
- 22  $\parallel$  Q. And then what do we see when we go over one more column?
- 23 A. Well, then the bump is 40.86 percent.
- 24 | Q. And that's --
- 25 A. The bump -- I want to clarify that. It's not the bump.

- That's their admissions probability if they were treated as
  Hispanic. The bump would be the gap between the two, which
  would be 30 percent.
- 4 Q. Thank you.
- Let's continue on down another row. So now we have a

  white, female, not first-generation college applicant with a

  probability if she's then treated -- or her race is changed to

  African American?
- 10 A. So it goes up to 87.8 percent; and if we change it to
  11 Hispanic, it would go up to 67 -- basically 67 1/2 percent.
- And, again, the numbers are slightly lower for the reasons we already discussed.
- 14 Q. Thank you.
- Let's move down once more: White, male, first-generation

  college. So this is like the first row, except instead of not

  first-generation college, it's a first-generation college

  applicant --
- 19 A. That's right.
- 20 Q. -- their chance of admission. What happens if that
  21 applicant changes race to African American but holds everything
- 22 | else the same?
- A. So if we start off with 10 percent, it goes up to
  57.9 percent. That's a substantial increase when we're talking
- 25 about over 47 percentage points. But it's also significantly

- 1 smaller than for not first-generation college, and that
- 2 | reflects the peculiar way that racial preferences operate, not
- 3 | just at UNC but at other places as well, of getting bigger
- 4 | bumps for those who are -- bigger racial bumps for those who
- 5 are not disadvantaged.
- 6 Q. And if we look all the way to the column on the right, the
- 7 third cell there, if that white, male, first-generation college
- 8 | applicant with a 10 percent chance of admission was then race
- 9 switched to Hispanic, everything else is kept the same, the
- 10 probability of admission then is what?
- 11 A. Over 35 percent.
- 12 Q. Let's go down one more. Can you tell us about this row?
- 13 A. So now our base is 25 percent. For changing to African
- 14 | American, it would be over 80 percent. Treating it as
- 15 | Hispanic, it would be over 62 percent.
- 16  $\parallel$  Q. Let's look at the last set. This is for white, female,
- 17 | first-generation college applicant with a 10 percent chance of
- 18 admission. What happens if her race is changed?
- 19 A. So now we're moving from 10 to 46, and that's in contrast
- 20 | because, again, African American women don't get as big of a
- 21 | bump as African American men. African American
- 22 | first-generation college students don't get as big a racial
- 23 | bump as non-first-generation college. So that's why for all
- 24 the 10 percent numbers, for African American that number is
- 25 going to be the smallest at 46 percent, which is still a

- 1 36-percentage-point increase. And then for -- if we treated it 2 as Hispanic, it's 31.8 percent.
- Q. And then let's look at the last row. Starting from a white, female, first-generation college applicant with a
- 5 25 percent chance of admission, what happens if everything else
- 6 is kept constant but her race is changed?
- 7 A. It increases to 72 percent if she's treated as an African
- 8 American and 58 percent if treated as an Hispanic.
- 9 Q. Did you do a similar transformational analysis for
- 10 | out-of-state applicants?
- 11 | A. I did.
- 12 Q. And did you prepare a slide showing the results of your
- 13 | analysis there?
- 14 | A. I did.
- 15 Q. So let's look -- since we started the last time with a
- 16 | white, male applicant who is not first-generation college at a
- 17 | 25 percent probability of admission, let's start there again,
- 18 | that second row. Can you -- can you tell us what happens there
- 19 | if his race is changed to African American or Hispanic?
- 20 A. Well, now it's going up to above 99 percent. So virtual
- 21 | certain admit if they're African American. And then for
- 22 | Hispanic, it's 87 percent.
- 23 Q. And if we look above the first row, if we start from a
- 24 white, male, not first-generation college applicant whose
- 25 | admission probability is 10 percent, what happens to his

- chances of admission if his race is changed and everything else remains constant?
- 3 A. Well, it's not much lower than it was at 25 percent because
- 4 you're already now in the tails of the distribution, right. So
- 5 | it's still -- at 10 percent, that's the base, it would go up to
- 6 98 percent out of state. The out-of-state preferences are
- 7 simply enormous.
- 8 Q. And what is the result if that applicant has his race
- 9 changed to Hispanic?
- 10 A. It goes up to 69 percent.
- 11 | Q. Let's look down further, and we'll see if we see the same
- 12 type of patterns. If you start from a white, male, not
- 13 | first-generation college applicant -- I'm sorry -- white,
- 14 female, not first-generation college applicant with 10 percent
- 15 chance of admission, what happens to her chances of admission
- 16 | if her race is changed and everything else is kept constant?
- 17 A. Here you don't see much difference because we don't see a
- 18 differential treatment for black females out of state. So the
- 19 number is pretty much identical to what it was for males at
- 20 98 percent; and for Hispanics, it's 76 percent.
- 21 | Q. If we go down to white, female, not first-generation
- 22 | college with a 25 percent chance of admission, what happens
- 23 | there?
- 24 A. It goes up by just a little bit because there's not that
- 25 | much room for it to increase to over 99.4 percent; and then for

- l | Hispanic, it's above 90 percent.
- 2 | Q. Keep going down: White, male, FGC, so first-generation
- 3 college applicant, with a 10 percent chance of admission.
- 4 These are a little bit lower, right?
- 5 A. That's right. This is, again, because you're not -- black
- 6 | applicants are not getting the full first-generation college
- $7 \parallel \text{bump.}$  So now that 10 percent initial admit probability goes up
- 8 | to 93 percent, still a dramatic swing of, you know, 83
- 9 percentage points; and for Hispanics, it goes up to 45 percent.
- 10 | The fact that the Hispanic numbers -- I haven't been
- 11 | highlighting that, but Hispanics don't get as big of a
- 12 | first-generation college bump either, particularly out of
- 13 state, though it's not as stark as it is for African Americans.
- 14 | Q. Let's go down to the 25 percent row, and we see, I think, a
- 15 similar pattern to what you just mentioned in the row above
- 16 | that?
- 17 | A. Yes.
- 18 Q. A little bit lower than they are up top?
- 19 A. That's right. So there's so much compression at the top
- 20 there that you're not going to see big differences there once
- 21 you get above 96 percent or something like that. So it's a
- 22 | 97.6 percent chance of admission if they were treated as
- 23 African American and 71 percent if treated as Hispanic.
- 24  $\parallel$  Q. Going down a little further, white, female applicant is
- 25 | not -- I'm sorry. White, female applicant who is

- 1 first-generation college and 10 percent chance of admission,
- 2 everything else is held the same and her race is changed, what
- 3 | happens to her admissions probabilities?
- 4 A. Again, gender doesn't matter for this one for African
- $5 \parallel \text{Americans}$ . It's 93.7. That's a lot different than it was for
- 6 whites. For Hispanics, it's slightly different at 54 --
- 7 | 54 percent.
- 8 | Q. Down one more: White, female, first-generation college
- 9 applicant with a 25 percent chance of admission, what happens
- 10 to her if her race is changed?
- 11 A. Almost 98 percent, 97.8 percent; and then for Hispanic,
- 12 | it's 78 percent.
- 13 | Q. Looking back on that analysis overall, what's the upshot
- 14 | there? What's the takeaway?
- 15 A. Well, the upshot is that, you know, these are very large
- 16 preferences. So, you know, if you're somebody who, you know,
- 17 | had some particular chance of admission, you know, like
- 18 10 percent, you're going to see those go up quite a bit.
- 19 Now, there are caveats to that, the caveats being, you
- 20 know, the model predicts really well, and so what that means is
- 21 we might not have a ton of people at those particular points,
- 22 | and that's really what motivates the next analysis.
- 23 | Q. So having completed your discussion of your
- 24 | transformational analysis, we'll go on next to your average
- 25 marginal effect analysis.

```
Would it be all right if I took a bathroom break?
2
            MR. MCCARTHY: Is that okay, Your Honor?
 3
             THE COURT: Well, we are scheduled to end here at
   5:00.
 4
 5
            MR. MCCARTHY: Scheduled to end when?
 6
            THE COURT: The trial protocol says 5:00.
7
            MR. MCCARTHY: Okay.
8
             THE COURT: It is ten till 5:00. If he needs to take
9
   a break, we may want to --
10
             THE WITNESS: I'm sorry. I didn't know what time it
   was. I can make 10 minutes.
11
12
            MR. MCCARTHY: On the other hand, we just completed
   that section. I'm at a natural stopping point.
13
             THE COURT: You're at a natural stopping point now?
14
15
   Is that what you're saying? What are you saying?
            MR. MCCARTHY: Yes. Because we just finished one of
16
17
   these four things, I'm sort of at a natural stopping point. If
18
   you were planning on stopping in 10 minutes anyway, we're
   probably better off calling it a day here.
19
20
            THE COURT:
                        That's what I think.
21
            MR. MCCARTHY: Okay. Thank you, Your Honor.
22
            THE COURT: All right. Thank you so much. We'll see
23
   you tomorrow.
24
             THE WITNESS: Great. Thank you.
25
            THE COURT: Yes.
```

| 1          | Is there anything else that we need to address this  |
|------------|--|
| 2          | afternoon?   |
| 3          | MR. FITZGERALD: Not from the Defendant UNC, Your   |
| 4          | Honor.   |
| 5          | THE COURT: All right. Then let us adjourn court, and   |
| 6          | we will resume in the morning at 9:30 a.m.   |
| 7          | MR. MCCARTHY: Thank you.   |
| 8          | THE COURT: All right. Thank you.   |
| 9          | (Proceedings recessed at 4:50 p.m.)  |
| 10         |  |
| 11         |  |
| 12         | CERTIFICATE  |
| 13  <br>14 | I, LORI RUSSELL, RMR, CRR, United States District Court Reporter for the Middle District of North Carolina, DO HEREBY CERTIFY: |
| 15         | That the foregoing is a true and correct transcript of the   |
| 16         | proceedings had in the within-entitled action; that I reported the same in stenotype to the best of my ability and thereafter  |
| 17         | reduced same to typewriting through the use of Computer-Aided Transcription.   |
| 18         |  |
| 19         | Lori Runell  |
| 20         | Lori Russell, RMR, CRR Date: 12/11/2020  |
| 21         | Official Court Reporter  |
| 22         |  |
| 23         |  |
| 24         |  |
| 25         |  |
|            | 1  |